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**THE ONTARIO INSTITUTE
FOR STUDIES IN EDUCATION**

Education Department, Ontario.

Annual Examinations, 1906.

HIGH SCHOOL ENTRANCE.

ENGLISH GRAMMAR.

Examiners: { I. M. LEVAN, B.A.
D. D. MOSHIER, B.A., B.PÆD.
D. WALKER, B.A.

Values

$$\begin{array}{l} 2 + 2 + \\ 12 = 16 \end{array}$$

1. (a) Define case.
(b) What parts of speech have case as an inflection?
(c) Name six different uses of the objective case and write sentences illustrating each.

$$\begin{array}{l} 3 + \\ (3 \times 2) \\ = 9 \end{array}$$

2. Adjectives are used with nouns in three ways or relations:—
(a) What are these relations called?
(b) Describe them and write an example of each.

$$\begin{array}{l} 1 \times 12 \\ = 12 \end{array}$$

3. Insert, in EACH of the following blanks, the correct form of the pronouns used by a person when speaking (a) for himself alone, (b) for himself with another, (c) of a lady, (d) of ladies, (thus forming twelve sentences in all):—

You think it must have been ———.

The man never saw John and ——— together.

That is ——— home.

$$\begin{array}{l} 5 \times 3 \\ = 15 \end{array}$$

4. Write the following sentences, changing the verb in each, (a) to the present perfect tense, (b) to the past progressive tense, (c) to the future indefinite tense:—

We do that at school.

I see him often.

The cat lies near the stove.

The sun rises in the east.

The boys dive in deep water.

[OVER]

Values

$5 + 5$
 $= 10$ 5. Write sentences using the following words as transitive verbs in the active voice and then express the same thought in each case by using the passive voice:—
lay, shrink, shake, prove, eat.

5×2
 $= 10$ 6. Select the clauses in the following sentence and state the kind and relation of each:—

I have pleaded again as I did a year ago that we should not follow the example of those who have gained success at a price no man of honor would think of paying.

1×10
 $= 10$ 7. Parse fully each word in the following sentence:—
Darkness coming on, our captain decided to advance under its cover.

$3 + 3 +$
 $6 + 6 =$
18 8. Analyse fully the following sentences:—
(a) The sword of heaven is not in haste to smite.
(b) Only good farming yields the farmer fair profits.
(c) The only structure that no neighborhood can do without is the school-house.
(d) My manly cheeks no woman's weapons, water-drops, shall stain.

Education Department, Ontario.

Annual Examinations, 1906.

HIGH SCHOOL ENTRANCE.

GEOGRAPHY.

Examiners: { I. M. LEVAN, B.A.
D. D. MOSHIER, B.A., B.PÆD.
D. WALKER, B.A.

Values

$4 + 2 +$
 $4 = 10$

1. (a) What causes ocean currents?
(b) Name the principal ones.
(c) Account for the direction in which each flows.

2×5
 $= 10$

2. Locate four large tracts of desert. Give a reason why there is so little rainfall over these areas.

$10 + 10$
 $= 20$

3. (a) Compare the United States with Canada as to area, population, climate, soil fertility, and surface characteristics.

(b) Name five seaports in each of these countries.

$10 + 8$
 $= 18$

4. (a) In what part of the Province of Ontario is each of the following an important industry:—dairying, fruit-growing, fishing, mining, lumbering?

(b) Name four important Ontario minerals, and state, as definitely as you can, the locality in which each is found.

$9 + 9$
 $= 18$

5. (a) Name a city in the British Isles which is noted for the manufacture of one of each of the following:—

(i) iron goods, (ii) woollen goods, (iii) cotton goods, (iv) linen goods, (v) silk goods, (vi) earthenware.

(b) From what countries is the raw material for each of these manufactures obtained?

12

6. Name three large cities in Europe, three mountain chains in Asia, three large rivers in Africa, and three British Possessions in the Pacific Ocean.

12

7. Where and what is each of the following:—Malta, Kamloops, Melbourne, Athabasca, Anticosti, Severn, Chaleurs, Calcutta, Sydney, Brandon, New Liskeard, Saguenay?

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HIGH SCHOOL ENTRANCE.

COMPOSITION.

Examiners: { I. M. LEVAN, B.A.
D. D. MOSHIER, B.A., B.PÆD.
D. WALKER, B.A.

Values

50

1. Write a composition of about thirty lines on not more than *one* of the following subjects:—

- (a) A Visit to the Country.
- (b) How I Spent Circus Day.
- (c) My Pet Animals.
- (d) A Journey by Rail.
- (e) My Favorite Book.
- (f) A Football Match.
- (g) Camping Out.
- (h) Canada, My Native Land.

35 + 5
= 40

2. (a) Write a letter to Warren Thompson, in care of John Thompson & Co., 79 Branch St., Toronto, asking him to give you employment. Tell him the kind of employment you would like, your age, the education you have received, and the other qualifications you possess. Tell also the salary you would expect, and state how soon you will be ready to begin work.

(b) Write the envelope address on a space ruled the proper size.

10

3. Write a formal note to Mrs. John Smith, accepting an invitation to dinner at six o'clock on Friday evening, June the twenty-ninth.

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HIGH SCHOOL ENTRANCE.

ARITHMETIC.

Examiners: { I. M. LEVAN, B.A.
D. D. MOSHIER, B.A., B.PÆD.
D. WALKER, B.A.

Values

12 1. A merchant has \$70·20 remaining after buying 1980 bushels of rye at 75 cents per bushel and 5237 bushels of wheat at 90 cents per bushel. How many bushels could he have purchased if he had bought no rye and invested all his money in wheat?

12 2. A grocer bought 974 dozen eggs at 16 cents per dozen. There were 42 of the eggs broken and he sold the remainder at the rate of 18 eggs for 27 cents. Find his gain.

12 3. A lot, 14 rods long and 11 rods wide, is to be enclosed by a picket fence. If the pickets are 3 inches wide and placed 3 inches apart, what will they cost at \$1·60 per hundred?

12 4. Two masses of silver, weighing 1169 oz. and 1393 oz., respectively, are each to be made, without loss, into medals of the same weight. Find the number of medals which can be made, if each has the largest possible weight.

8 + 8 =
16

5. Simplify:—

(a) $(3\frac{3}{10} - 1\frac{5}{8} + 1\frac{1}{3} - 2\frac{1}{15}) \times \frac{2}{17}$ of $21\frac{1}{4}$.

(b)
$$\frac{(3\cdot6 \div \cdot4) + (\cdot56 \div 7) - (1\cdot1 \times \cdot3)}{5 \times \cdot5 \times \cdot05}$$

[OVER]

Values

- 12 6. A gentleman left $\frac{2}{9}$ of his estate to his daughter; $\frac{2}{5}$ of it to his son; $\frac{6}{17}$ of the remainder to his brother; and the balance to his wife. The wife's share was \$5347.23 less than that of the son. What was the value of the whole estate?
- 12 7. On April 1st, 1905, a man loaned \$520 at $5\frac{1}{2}\%$ per annum, simple interest. On what date would \$525.72 pay for loan and interest?
- 12 8. A man bought a quantity of grain for \$6000. He shipped it to Liverpool, paying $\frac{7}{8}\%$ on $\frac{4}{5}$ of its cost for insurance, and \$225 for freight. His agent there sold it, on a commission of $2\frac{1}{2}\%$, for \$7200. What was the man's net gain?

Education Department, Ontario.

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HIGH SCHOOL ENTRANCE.

SPELLING.

Examiners: { I. M. LEVAN, B.A.
D. D. MOSHIER, B.A., B.PÆD.
D. WALKER, B.A.

NOTE TO PRESIDING OFFICER.—Treat each sentence as follows :—(a) Read it aloud distinctly, to give the candidates the thought ; (b) read it again slowly for dictation, TAKING GREAT CARE TO MAKE EVERY CANDIDATE UNDERSTAND YOU ; (c) read it a third time for corrections, thus completing each sentence before proceeding to the next. Advise candidates not to write it all over again.

(Value 50. Two marks off for each error.)

1. The fairies appeared and disappeared, in rapid succession.
2. He carried ninety pounds of flour across a field of forty acres.
3. There is a fine brooch, with three pearls, cheap at the bazaar.
4. I can make a good meal on hot biscuits and honey.
5. The ceiling of his library is made of cedar.
6. A president can not be an autocrat like a czar.
7. I would not like to live in the frigid or torrid zone.
8. He is losing money daily in that business.
9. That English carpenter's chisel cost a sovereign.
10. The villain knocked him senseless and stole his valise.
11. He tried to pare the pear with a pair of scissors.
12. Boys like threshing better than spading or digging.
13. Bring some lettuce, celery and cucumbers.
14. The physician became premier of the colony.
15. The tortoise beat the hare in a race.
16. I purchased a pen-knife and a bottle of mucilage.
17. He broke his thumb and sprained his ankle.

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HIGH SCHOOL ENTRANCE.

WRITING.

Examiners: { I. M. LEVAN, B.A.
D. D. MOSHIER, B.A., B.PÆD.
D. WALKER, B.A.

Values

- | | |
|----|---|
| 16 | 1. Write all the letters of the alphabet in capitals. |
| 12 | 2. Write the following figures four times, using four lines of your paper :—0, 1, 2, 3, 4, 5, 6, 7, 8, 9. |
| 12 | 3. Write :—
Speak gently, kindly to the poor !
Let no harsh term be heard,
They have enough they must endure,
Without an unkind word. |
| 10 | 4. Write at least one line each of three different free-hand exercises you have practised. |

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HIGH SCHOOL ENTRANCE.

READING (*WRITTEN*).

Examiners: { I. M. LEVAN, B.A.
D. D. MOSHIER, B.A., B.PÆD.
D. WALKER, B.A.

Values

A.

- 10 1. Quote *either* the first five verses of "Resignation" or the first five verses of "A Psalm of Life".

B.

The breezy call of incense-breathing morn,
The swallow twittering from the straw-built shed,
The cock's shrill clarion, or the echoing horn,
No more shall rouse them from their lowly bed.

- 5 For them no more the blazing hearth shall burn,
Or busy housewife ply her evening care ;
No children run to lisp their sire's return,
Or climb his knee the envied kiss to share.

- 10 Oft did the harvest to their sickle yield,
Their furrow oft the stubborn glebe has broke ;
How jocund did they drive their teams a-field !
How bowed the woods beneath their sturdy stroke !

- 15 Let not Ambition mock their useful toil,
Their homely joys, and destiny obscure ;
Nor Grandeur hear, with a disdainful smile,
The short and simple annals of the poor.

- 20 The boast of heraldry, the pomp of power,
And all that beauty, all that wealth e'er gave,
Await alike the inevitable hour—
The paths of glory lead but to the grave.

- 5 2. Give, in a short phrase or sentence, the subject of each stanza.

- 4 3. (a) "No more shall rouse them" (line 4). Name, in plain and simple language, the four things which the author says will never rouse them again.

[OVER]

Values

- | | |
|--------------------------|--|
| 4 | (b) "Their useful toil" (line 13). Name, in plain language, the four kinds of toil mentioned in the extract. |
| 3 | (c) "Their homely joys" (line 14). Name, in plain language, three of the homely joys mentioned in the extract. |
| 2 + 4 +
2 = 8 | <p>4. (a) "The inevitable hour" (line 19). What hour is meant? Why is it called <i>inevitable</i>?</p> <p>(b) Name, as simply as you can, the four classes of persons referred to in lines 17 and 18.</p> <p>(c) Tell, in simple words, what the poet says about these persons.</p> |
| 3 | 5. "The paths of glory lead but to the grave" (line 20). Explain clearly the meaning of this sentence. |
| 8 | 6. Explain, fully and simply, the meaning of the following words as used in the extract:—"incense-breathing" (line 1), "straw-built" (line 2), "clarion" (line 3), "horn" (line 3), "stubborn" (line 10), "glebe" (line 10), "jocund" (line 11), "annals" (line 16). |
| 4 + 2 +
2 + 2 =
10 | <p>7. (a) What is meant by <i>rhyme</i> and <i>alliteration</i>?</p> <p>(b) Give two examples of each from the extract.</p> <p>(c) Give also two examples of faulty rhyme.</p> <p>(d) "Ambition" (line 13), "Grandeur" (line 15). Why do these words begin with capital letters?</p> |

C.

God spake three times and saved Van Elsen's soul ;
 He spake by sickness first, and made him whole ;
 Van Elsen heard him not,
 Or soon forgot.

5 God spake to him by wealth ; the world outpoured
 Its treasures at his feet, and called him lord ;
 Van Elsen's heart grew fat
 And proud thereat.

10 God spake the third time when the great world smiled,
 And in the sunshine slew his little child ;
 Van Elsen like a tree
 Fell hopelessly.

15 Then in the darkness came a voice which said,
 "As thy heart bleedeth, so My heart hath bled ;
 As I have need of thee
 Thou needest Me."

That night Van Elsen kissed the baby feet,
And, kneeling by the narrow winding-sheet
Praised Him with fervent breath
Who conquered death.

2+5+
3+14
=24

- 20
8. (a) State briefly the subject of this poem.
(b) Show what part of the subject is dealt with in each stanza.
(c) Show the connection in thought between the first two and the last two lines of each of the first three stanzas.
(d) Explain clearly the meaning of the following passages:—"And made him whole" (line 2); "And called him lord" (line 6); "Van Elsen's heart grew fat" (line 7); "when the great world smiled" (line 9); "in the sunshine" (line 10); "in the darkness" (line 13); "the narrow winding-sheet" (line 18).

D.

Rip Van Winkle's sole domestic adherent was his dog Wolf, who was as much henpecked as his master; for Dame Van Winkle regarded them as companions in idleness, and even looked upon Wolf with an evil eye as the cause of his master's going so often astray. True it is, that in all points of spirit befitting an honorable dog, he was as courageous an animal as ever scoured the woods—but what courage can withstand the ever-during and all-besetting terrors of a woman's tongue? The moment Wolf entered the house, his crest fell, his tail drooped to the ground or curled between his legs, he sneaked about with a gallows air, casting many a sidelong glance at Dame Van Winkle, and at the least flourish of a broomstick or ladle, he would fly to the door with yelping precipitation.

2+3+
14+3
=22

- 5
- 10
9. (a) What is the subject of this paragraph?
(b) Show what part of the subject is spoken of in each sentence.
(c) State clearly the meaning of the following expressions:—"sole domestic adherent" (line 1); "henpecked" (line 2); "looked upon Wolf with an evil eye" (line 4); "scoured the woods" (line 7); "his crest fell" (line 9); "with a gallows air" (line 11); "with yelping precipitation" (line 13).
(d) Select from the paragraph three expressions which you consider humorous.

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HIGH SCHOOL ENTRANCE.

READING (ORAL).

Examiners: { I. M. LEVAN, B.A.
D. D. MOSHIER, B.A., B.PÆD.
D. WALKER, B.A.

In the examination in reading, the examiners will use one or more of the following passages, paying special attention to pronunciation, emphasis, inflection and pause. They will also satisfy themselves, by an examination on the meaning of the reading selection, that the candidate reads intelligently as well as intelligibly. Twenty lines, at least, should be read by each candidate.

Candidates may elect to read from either the Ontario Readers or the Canadian Catholic Readers.

(Value=50.)

SELECTIONS.

Ontario Readers:—

The Little Midshipman.
The Battle of Bannockburn.
Lady Clare.
The Forsaken Merman.

Canadian Catholic Readers:—

Encounter With a Panther.
The Shipwreck.
The Chase.
King Robert of Sicily.

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DISTRICT CERTIFICATE.

COMPOSITION.

Examiners: { J. B. McDougall, B.A.
H. I. Strang, B.A.

Write a composition of about sixty lines on any *one* of the following subjects :—

- (a) Oliver Goldsmith.
- (b) The New Provinces of the Dominion.
- (c) The Kingdom of Norway.
- (d) Winter Life on the Farm.
- (e) What Electricity may do for the Farmer.
- (f) Books as Friends and Companions.
- (g) A Trip I would like to take.

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DISTRICT CERTIFICATE.

GEOGRAPHY.

Examiners: { D. ROBB, B.A.
R. G. SCOTT, B.A.

1. Discuss the following, illustrating part (a) by a diagram :—
 - (a) The positions of the earth as to the sun during its annual revolution, stating the consequences to the earth of its several positions in this revolution.
 - (b) The various conditions affecting the climate of a country.
2. Write notes on :—glacier, iceberg, ocean currents, tides, formation of dew.
3. (a) Draw an outline map of the Province of Ontario, naming respectively the lake, land, and river boundaries, and indicating the direction of each of the latter.
 - (b) Write on the above map the places where nickel, petroleum, corundum, and lumber are chiefly found.
4. Describe the climate, physical features and products of New Brunswick.
5. Draw an outline map of Asia, and locate and name on it its chief rivers, chief mountain ranges, chief gulfs or bays, and state what its chief vegetable products are, and where they are found.
6. Define and locate each of the following, stating for what each of them is noted :—Quebec, Hamburg, Belfast, Kronstadt, St. Lucia, Toulon, Sidney, Panama, Astrachan, Leeds, Edmonton, Zambesi.
7. Name and locate the places from which we get each of the following, viz. :—
 - (a) woollen fabrics, cotton fabrics, silk fabrics ;
 - (b) canned salmon, canned lobster, canned sardines, smoked hams, raisins, oranges, figs, prunes, lemons, bananas.

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DISTRICT CERTIFICATE.

ARITHMETIC AND MENSURATION.

Examiners: { D. ROBB, B.A.
W. W. RUTHERFORD, B.A.

1. (a) Divide 12962984 by 105, using *three* factors, and show clearly how you found the correct remainder.

(b) Divide .0075 by 25.6 correct to six decimal places, and give the reason for fixing the position of the decimal point in the quotient.

2. (a) Show that $.93\dot{5}6\dot{4} = \frac{93471}{99900}$.

(b) Simplify $\frac{2.5 + 1\frac{1}{4} - 2.125}{2.3 + 3.75 - 4.58\dot{3}} \div \frac{.26 + .2 \text{ of } 3.7}{.48 - .014 \text{ of } 20}$.

3. (a) Find the square root of .5 correct to four decimal places.

(b) A farmer bought as many cattle as each cost him in dollars. He paid \$5625. Find the number bought and the price of each.

4. A field whose width is 2 chains, 50 links, contains 2 acres. What will it cost to enclose the field with a wire fence costing 54 cents per rod?

5. If a man takes 468 steps in walking round a square playground, keeping 3 feet within the boundary fence. Find the area of the play ground if 9 of his steps are equal to 5 yards.

6. A man borrowed \$2190 on a note at a bank on May 3rd, at 10% interest. When he paid the note, the bank charged him \$2214 for principal and interest. Counting 365 days to the year, find on what day he repaid the money.

7. What must be the market value of 8% stock so that after paying an income tax of 15 mills on the dollar it may yield 5% on investment?

8. Draper & Co. sent \$2054 to buy goods. The agent charges for freight \$9, and $2\frac{1}{4}\%$ commission on the goods purchased. Find the value of the goods bought, all charges being paid out of the sum sent.

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DISTRICT CERTIFICATE.

ENGLISH GRAMMAR.

Examiners : { J. B. McDOUGALL, B.A.
 { H. I. STRANG, B.A.

1. "Think, every morning when the sun peeps through
The dim leaf-latticed windows of the grove,
How jubilant the happy birds renew
Their old, melodious madrigals of love !
And when you think of this, remember too
'Tis always morning somewhere, and above
The awakening continents, from shore to shore,
Somewhere the birds are singing evermore."

- (a) Write out in full all the subordinate clauses in the above passage ; give kind and relation of each.
(b) Give the detailed analysis of the last clause.
(c) Define (i) derivative word, (ii) compound word, and select two examples of each from the above extract.
(d) Parse "morning" (line 1), "jubilant" (line 3).

2. Parse the italicized words in the following :—

- (a) I want to hear you *play*.
(b) He ran a *mile*.
(c) There was nothing for it *but* to return.
(d) I told the *class* to study their lessons.
(e) They were delayed, *as* often happens, by the wind.
(f) *What* matters it ?

3. Explain the use of the following terms, and give one example of each :— cognate object, antecedent, reflexive verb, compound subject, verb phrase.

4. (a) Give the corresponding gender-nouns for :— czar, widow, beggar, kinsman, belle, madam.

- (b) Write the possessive case, singular and, where possible, plural of :—ox, prince, patience, who, gentleman, John Burroughs.

[OVER]

5. Separate the following words into root-word, and prefix or suffix, and show how the meaning of the root-word is affected by the addition:—gainsay, renew, truthful, numberless, misfit, European, greenish, superhuman.

6. Correct the following where necessary, giving reasons:—

- (a) Crossing the street, my hat blew off.
- (b) I called at my uncles to see you.
- (c) Let everyone do as they like.
- (d) I shall accost him, let him be whom he may.
- (e) When will I reach my destination?
- (f) Why don't she come?
- (g) How far did you say it was to Chicago?
- (h) Either you or I are mistaken.

7. Write in full the past and the present-perfect tenses, indicative, active, of the verbs “lay” (to place), and “dive”.

8. Write sentences (one each) containing a noun clause used as:—(a) subject of a verb, (b) object of a verb, (c) object of a preposition, (d) predicate noun, (e) appositive to a noun.

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DISTRICT CERTIFICATE.

HISTORY.

Examiners: { J. B. McDougall, B.A.
R. G. Scott, B.A.

1. "The Magna Charta, the Petition of Rights, and the Bill of Rights, tell of the growing power of parliament and the increasing freedom of the people."

Give the main provisions of each, in proof of this statement.

2. With what reforms are the following names associated:—John Howard, Florence Nightingale, Lord John Russell, Sir Rowland Hill, Richard Cobden, William Wilberforce?

3. (a) Indicate in detail how the Federal Government of Canada is modelled upon that of Great Britain.

(b) How is "responsible government" secured under our Constitution?

4. Where are the following and what historic interest attaches to each:—Trafalgar, Naseby, Utrecht, Batoche, Crecy, Queens-ton Heights, Bannockburn, Louisbourg, Waterloo?

5. "Standing in the way of progress were the two obstacles, 'The Clergy Reserves' and 'Seignorial Tenure'."

Discuss this statement and tell how the difficulties were removed.

6. Give the circumstances leading to the passing of the Act of Union (1840), and name its chief provisions.

7. Write brief explanatory notes on any *three* of the following:—Reciprocity, Hague Conference, Local Option, Munroe Doctrine, Political Deadlock, Protective Tariff.

8. (a) Draw an outline map of the Dominion of Canada, marking *two* points where the boundary line between United States and Canada was disputed.

(b) How was either of these disputes finally settled?

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DISTRICT CERTIFICATE.

GEOMETRY.

Examiners: { D. ROBB, B.A.
W. W. RUTHERFORD, B.A.

NOTE.—For the first five questions the following instruments are essential :
(1) a *Ruler* on which are marked inches divided into sixteenths ; (2) a *Pair of Compasses* ; (3) a *Protractor*. All lines and angles must be drawn with exactness.

1. On a straight line 2 inches long construct an isosceles triangle with each of the equal sides 3 inches. Inscribe a circle in this triangle.

2. Two straight lines make an angle of 60° with each other. Place a straight line 2 inches long with its ends resting on them and making an angle of 80° with one of them.

3. Two parallel lines are $1\frac{1}{2}$ inches apart, and a third line cuts them at an angle of 60° . Describe two circles, each touching the three lines. Indicate the length of the radius.

4. Construct a square which shall contain 13 square inches.

5. About a circle of radius 1 inch describe an equilateral triangle.

6. If two triangles have two sides of one equal respectively to two sides of the other, and the included angles equal, the two triangles are equal in all respects.

7. If a straight line fall on two parallel straight lines, it makes (a) the alternate angles equal, and (b) the two interior angles on the same side together equal to two right angles.

8. Straight lines which join the extremities of equal and parallel straight lines towards the same parts are themselves equal and parallel.

9. The complements of the parallelograms about the diagonal of any parallelogram are equal in area.

10. In a given straight line find a point equidistant from two given points not lying on the line.

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DISTRICT CERTIFICATE.

ALGEBRA.

Examiners: { D. ROBB, B.A.
W. W. RUTHERFORD, B.A.

1. (a) Divide $a(a-1)x^3 + (a^3 + 2a - 2)x^2 + (3a^2 - a^3)x - a^4$ by $ax^2 + 2x - a^2$.

(b) Divide 1 by $(1-x)^2$ to five terms in the quotient, and without further division, write out the 50th term.

2. (a) Show that $x(x-2y)^3 - y(y-2x)^3 = (x-y)(x+y)^3$.

(b) Simplify

$$(a-b)^3 + (a+b)^3 + 3(a-b)^2(a+b) + 3(a-b)(a+b)^2.$$

3. Factor:—

(a) $a^2 - x^2 + a - x$.

(b) $(a+b)^2 + 2(a+b)c - 15c^2$.

(c) $a^3 - 8b^3$.

(d) $a^2 - b^2 + c^2 - 2ac$.

4. Find (a) the H. C. F., and (b) the L. C. M. of:—

$$x^3 + 2x^2 - x - 2 \text{ and } x^3 - 3x + 2.$$

5. Simplify:—

(a) $\frac{3a}{a+x} + \frac{a}{a-x} + \frac{2ax}{x^2 - a^2}$.

(b) $\frac{1-a^2}{(1+ax)^2 - (a+x)^2}$.

6. Solve:—

(a) $\frac{1}{x-2} - \frac{1}{x-4} = \frac{1}{x-6} - \frac{1}{x-8}$.

(b) $7x + 2y = 20,$
 $13x - 3y = 17.$

[OVER]

7. What is the price of beef per pound, if a reduction of 20 per cent. in the price would enable a purchaser to obtain 10 lbs. more for five dollars?

8. A man and a boy together receive \$30 for work done. The man works 7 days and the boy 12 days; and the man earns in 3 days \$5.25 more than the boy earns in 5 days. What wages does each get per day?

Education Department, Ontario.

Annual Examinations, 1906.

DISTRICT CERTIFICATE.

ENGLISH LITERATURE.

Examiners: { J. B. McDOUGALL, B.A.
H. I. STRANG, B.A.

1. But past is all his fame. The very spot
Where many a time he triumphed is forgot.
Near yonder thorn, that lifts its head on high,
Where once the sign-post caught the passing eye,
5 Low lies the house where nut-brown draughts inspired,
Where grey-beard mirth and smiling toil retired,
Where village statesmen talked with looks profound,
And news much older than their ale went round.
Imagination fondly stoops to trace
10 The parlor splendours of that festive place.
.
.
.
Obscure it sinks, nor shall it more impart
An hour's importance to the poor man's heart ;
Thither no more the peasant shall repair
To sweet oblivion of his daily care ;
15 No more the farmer's news, the barber's tale,
No more the woodman's ballad shall prevail ;
No more the smith his dusky brow shall clear,
Relax his ponderous strength and lean to hear ;
The host himself no longer shall be found
20 Careful to see the mantling bliss go round.

(a) Who is referred to in the first two lines, and what is meant by "he triumphed" ?

(b) Name four of the "parlor splendours" mentioned in the poem.

(c) Explain the meaning of "nut-brown draughts" (l. 5), "smiling toil" (l. 6), "mantling bliss" (l. 20).

(d) How would it "impart an hour's importance to the poor man's heart" (l. 12) ?

(e) "Farmer's news" (l. 15), "barber's tale" (l. 15), "woodman's ballad" (l. 16). Show the appropriateness of the phrase in each case.

(f) Show that the epithets "sweet" (l. 14), and "dusky" (l. 17), are well chosen.

(g) Point out any instance of good-natured satire in the passage.

[OVER]

2. And a town-meeting was convened straightway
 To set a price upon the guilty heads
 Of those marauders, who, in lieu of pay,
 Levied black-mail upon the garden beds
 5 And corn-fields, and beheld without dismay

 The skeleton that waited at their feast
 Whereby their sinful pleasure was increased.

(a) Give words of equivalent meaning for “convened” (l. 1), “marauders” (l. 3), “lieu” (l. 3), “dismay” (l. 5).

(b) “Levied blackmail” (l. 4). What is the ordinary meaning of this phrase? What does it mean here?

(c) What was “the skeleton that waited at their feast”? Why or how was “their sinful pleasure increased”?

(d) Who were the four chief personages that attended the town-meeting? Give the chief characteristics of any one of them as pictured by the poet.

3. Explain the meaning of any *four* of the following passages:—

- (a) To husband out life’s taper at the close.
- (b) Lands he could measure, terms and tides presage,
And even the story ran that he could gauge.
- (c) Redress the rigours of the inclement clime.
- (d) The ceaseless fusilade of terror ran.
- (e) Despoiled of his magnificent attire
And besprent with mire.
- (f) In sombre harness mailed.

4. Tell in what poems and in what connection any *four* of the following passages occur:—

- (a) Like a golden goblet falling
And sinking into the sea.
- (b) Distinct as a passing footstep’s fall,
It echoes along the vacant hall.
- (c) It was no dream ; the world he loved so much
Had turned to dust and ashes at his touch !
- (d) And even his failings leaned to virtue’s side.
- (e) Whose household words are songs in many keys,
Sweeter than instrument of man e’er caught.
- (f) Soft eyes did gaze on me,
Burning yet tender.
- (g) Thou source of all my bliss, and all my woe,
Thou found’st me poor at first and keep’st me so.

5. Give in your own words, in a short paragraph, the lesson that “The Ladder of St. Augustine” is intended to teach.

6. What suggested the poem "The Skeleton in Armor" ?

7. Distinguish rhythm and rhyme. Describe the metre in which "The Deserted Village" is written, and scan any *two* consecutive lines from the extract given.

8. When did Goldsmith live? Mention *two* of his most intimate friends. Name *three* of his works, prose or poetry, other than "The Deserted Village."

9. Quote *eight* consecutive lines from "The Deserted Village," and *eight* consecutive lines from one of Longfellow's poems, telling from which poem they are taken.

Education Department, Ontario.

Annual Examinations, 1906.

DISTRICT CERTIFICATE.

Dictation.

Examiners: { R. G. SCOTT, B.A.
 { H. I. STRANG, B.A.

NOTE.—The Presiding Officer shall read section A three times—the first time to enable the candidate to grasp the sense ; the second, slowly, to enable the candidate to write the words ; the third, for review. For section B only two readings are required—the first, for writing ; the second, for review. In section A two marks are to be deducted for each misspelt word ; in section B, each word spelled correctly is to be valued at two marks. Where the number of marks to be deducted from the value of a section exceeds the number of marks assigned to that section, the excess is not to be charged against another section.

A.

The philosopher's stone is alone sought after by the alchemists of modern days ; nothing is studied but what will render the human mind prolific of dollars.

To purify the heart, and humanize the affections ; to elevate the understanding and dignify the manners ; to provide not the means of elevation in life, but the power of bearing elevation with propriety ; to confer not the power of subduing others, but the means of conquering one's self ; to impress love to God and good will towards men, are deemed the useless and antiquated pursuits of the monks of former days. Practical chemistry and sulphuric acid ; decrepitating salts and hydraulic engines ; algebraic equations and commercial academies ; mercantile navigation and double and single book-keeping, have fairly, in the seminaries of the middle ranks, driven Cicero and Virgil off the field. The vast extension of education, the prodigious present activity and energy of the human mind, the incessant efforts of the middle ranks to elevate and improve their worldly situation, afford, we fear, no reasonable grounds for hoping that this degrading change can be arrested ; on the contrary they are the very circumstances which afford a moral certainty that it will continue and increase.

[OVER]

B.

pneumonia
diphtheria
monotony
tantalize
secede

homicide
annihilate
fascinate
parallel
abbreviate

heresy
privilege
quadrilateral
impenetrable
incomparable

precipitate
luncheon
villainous
apology
auxiliary

Département de l'Éducation, Ontario.

EXAMENS ANNUELS, 1906.

Certificats d'Ecoles Bilingues.

COMPOSITION FRANÇAISE.

1. Rendez avec plus d'énergie ou plus d'instance :

(a) Je fais appel à votre bon coeur.

(b) La vertu est une belle chose.

2. Dans les phrases suivantes, indiquez clairement les fautes contre la bonne composition, et transcrivez ces mêmes phrases de manière à les rendre plus claires, plus précises ou plus justes :

(a) Le petit Charles a promis à sa cousine, Rose, qu'il ne maltraiterait plus sa petite sœur. (La petite sœur de qui?)

(b) Dans les grandes villes on y trouve un grand nombre de jeunes gens désœuvrés.

(c) Deux sujets singuliers de différentes personnes, unis par la conjonction et, le verbe se met au pluriel et à la personne qui a la priorité : Lui et moi lirons.

3. Remplacez les mots en italique par leurs synonymes, de manière que le sens soit le moins possible altéré. Soulignez ces synonymes.

Un tailleur étant tombé *gravement* malade, eut un *songe* des plus *bizarres*. Il *lui semblait* qu'il *était* au jugement dernier, et l'ange de la mort *déroulait* à ses regards un *énorme* drapeau, *formé* de *toutes les pièces* de *diverses* étoffes qu'il avait *volées* à ses clients. Au même *moment*, il se crut *plongé* dans les enfers, et se réveilla en sursaut, *couvert* d'une sueur *glacée*.

Le tailleur *considéra* ce rêve comme un *avertissement* de Dieu, et il fit vœu de *remplir mieux* son devoir, en cas qu'il *guérit*. Il ne tarda pas à guérir en effet, et, comme il se *défiait* de lui-même, il *prescrivit* à un de ses garçons de *le faire res-souvenir* du drapeau *chaque* fois qu'il *couperait* un *habit*. Notre homme, pendant assez longtemps fut fidèle à son vœu ; mais un jour qu'il taillait un habit dans un drap de grand prix, sa vertu, mise à une trop forte épreuve, *échoua*. En vain son garçon *essaya* à *plusieurs* reprises de lui rappeler le drapeau : "Tu m'ennuies avec ton drapeau, lui dit-il. *Au reste*, il n'y avait point *d'étoffe* de cette *nuance* dans celui que j'ai *aperçu* en songe.

Département de l'Éducation, Ontario.

EXAMENS ANNUELS, 1906.

Certificats d'Ecoles Bilingues.

GRAMMAIRE FRANÇAISE.

1. Ecrivez au pluriel :

porte-drapeau ; oiseau-mouche ; œil bleu ; homme déloyal ; combat naval glorieux et décisif ; tout fier qu'il est, il lui a fallu boire l'affront ; le Lapon a un animal domestique fort utile ; cet homme agit bien et pense juste.

2. Ecrivez au féminin :

ami ; prophète ; tigre ; débiteur ; écrivain ; arithméticien ; géant ; frères jumeaux ; un son (voix) aigu ; un terrain trop sec n'est jamais productif ; le roi, l'empereur, le tzar ou le comte était présent.

3. Comment désignez-vous les trois degrés de signification que peut exprimer un adjectif ?

Ecrivez les adjectifs suivants de manière que chacun représente ces divers degrés de signification ou de qualification :

studieux ; mauvais ; bon ; petit ; supérieur.

4. Comment s'accordent :

(a) Les adjectifs nu et demi ?

(b) Les adjectifs accompagnant les verbes être, devenir, sembler, etc. ?

(c) Les adjectifs (ou les participes) employés avec deux noms singuliers ; l'un masculin, l'autre féminin ?
(Citez toujours des petites phrases illustratives.)

5. Ecrivez aux temps primitifs : aller, courir, servir, savoir, dire, faire, vaincre, instruire.

6. Conjuguez :

(a) voir au futur simple ;

(b) être au subjonctif présent ;

(c) chanter, à la fois interrogativement et négativement, au présent de l'indicatif.

[OVER]

7. Dites (avec exemples) comment faire accorder ou non :

- (a) un participe passé conjugué avec l'auxiliaire avoir ;
- (b) un participe passé suivi d'un infinitif ;
- (c) les participes passés ci-joint, ci-inclus.

8. Indiquez clairement les précautions à prendre quand on emploie un adjectif ou un participe en tête d'une phrase. Ex. : Poussé par le désir d'amasser, l'avare se refuse jusqu'au nécessaire.

9. Doit-on dire :

- (a) C'est ou ce sont mon frère et ma sœur ?
- (b) C'est ou ce sont quatre heures qui sonnent ?

Education Department, Ontario.

Annual Examinations, 1906.

PART II. JUNIOR TEACHERS.

HISTORY.

Examiners: { A. R. BAIN, M.A.
E. A. HARDY, B.A.
W. S. W. McLAY, M.A.

NOTE.—Candidates will take either (a) or (b) of each question, but not both.

1. (a) Give a short sketch of the life, character, and political aims of George III.

(b) Sketch the career and character of the younger Pitt.

2. (a) Write historical notes on :—

- (i) The Gordon Riots, 1780 ;
- (ii) The Catholic Emancipation Act, 1829 ;
- (iii) The Anti-Corn-Law League, 1838 ;
- (iv) The Treaty of Ghent, 1814.

(b) Describe the political and social condition of Ireland between 1782 and 1800.

3. (a) Write historical notes on :—

- (i) The Treaty of Paris, 1763 ;
- (ii) The Quebec Act, 1774 ;
- (iii) The Elgin Riots, 1849 ;
- (iv) The Act of Union of the Canadas, 1840.

(b) Give the causes which produced and the results which followed the Canadian disturbances of 1837-38.

4. (a) Describe the training to which the Spartans were subjected by the laws ascribed to Lycurgus.

(b) Name the places at which the four great national games of Greece were held ? How were the Greeks influenced, mentally, morally and politically by these gatherings ?

[OVER]

5. (a) Sketch the career of Philip of Macedon.

(b) Give the chief events in the Peloponnesian war between 413 B.C. and 404 B.C.

6. (a) Give the provisions of the Licinian-Sextian law and the chief results flowing from them.

(b) Point out the importance to Europe of the battle of Actium and account for the fall of the republic of Rome.

7. (a) Indicate the position of:—Miletus, Mitylene, Mycale, Plataea, Veii, Sentinum, Tarentum, Cannae.

(b) Indicate the position of:—Chalcis, Mycenae, Leuctra, Chaeroneia, Capua, Massilia, Saguntum, Utica.

Education Department, Ontario.

Annual Examinations, 1906.

PART II. JUNIOR TEACHERS.

PHYSICS.

Examiners: { F. B. KENRICK, PH.D.
J. C. McLENNAN, PH.D.
W. H. PIERSOL, B.A.

1. (a) Distinguish (i) conduction, (ii) convection, (iii) radiation of heat.

(b) Indicate the part taken by each of these processes in heating a room by steam or hot water pipes.

2. (a) Describe, with diagram, the transmission of sound waves in air.

(b) Explain the principle of interference of sound waves in air and show how this principle may be used experimentally to determine the velocity of sound in air.

3. (a) Describe, with diagram, the motion of the air in a vibrating open organ pipe emitting its fundamental note.

(b) Find the wave lengths in air corresponding to the notes of a major chord, the vibration number of the fundamental note being 256, and the velocity of sound being 330 metres per second.

4. (a) Describe and explain some method by which the intensities of the light from two sources may be compared.

(b) How would you arrange a lamp, slit, lens, and prism to form a pure spectrum on a screen? Make a diagram showing the path of the light rays.

5. (a) Make drawings to show the position of the image of an object formed by a concave mirror :—

- (i) when the object is between the principal focus and the mirror ;
- (ii) when the object is between the centre of curvature and the principal focus ;
- (iii) when the object is at a greater distance than the centre of curvature from the mirror.

[OVER]

(b) Explain, with diagram, the action of a lens when used as a magnifying glass.

6. (a) Describe the construction of a Leclanchè cell, and show, giving diagram, how it may be used to ring an electric door-bell.

(b) Explain what is meant by (i) inclination, (ii) electrolysis, (iii) an induced electric current.

7. Show how to compare the intensities of two electric currents, and describe the apparatus used in the experiment.

Education Department, Ontario.

Annual Examinations, 1906.

PART II. JUNIOR TEACHERS.

ENGLISH GRAMMAR.

Examiners : { A. R. BAIN, M.A.
E. A. HARDY, B.A.
W. S. W. McLAY, M.A.

1. "Following with wonderful promptitude the directions of Ivanhoe, and *availing* herself of the protection of the large ancient shield, which she placed against the lower part of the window, Rebecca, with tolerable security to herself, could *witness* part of what was *passing* without the castle, and report to Ivanhoe the preparations which the assailants *were making* for the storm. *Indeed*, the situation which she thus obtained was peculiarly favorable for this purpose, because, *being placed* on an angle of the main building, Rebecca could not *only* see what passed beyond the precincts of the castle, but also commanded a view of the outwork *likely* to be the first object of the meditated assault. It was an exterior fortification of no great height or strength, intended to protect the postern-gate, through which Cedric had recently been dismissed by Front-de-Boeuf. The castle moat divided this barbican from the rest of the fortress, so that, in case of its *being taken*, it was easy to cut off the communication with the main building, by withdrawing the temporary bridge."

(a) Write out in full the subordinate clauses in the above passage, stating their kind and relationship, and indicating especially the word or words to which they are directly attached.

(b) State the grammatical values and relations of the italicised words.

2. Select six phrases from the following sentences; write them in full and tell their kind and relationship:—

- (a) Oh, it is excellent to have a giant's strength.
- (b) For all his poverty he lives a happy life.
- (c) He began cutting bread and butter.
- (d) They lived a cat and dog life.
- (e) Without going into details I may indicate my position.
- (f) He spoke of returning the priceless volume at once.

[OVER]

3. (a) Give corresponding number-forms of:—solo, foster-child, dogma, memoranda, genus, madam, governor-general, dragoman.

(b) Give corresponding gender-forms of:—votary, mermaid, duke, colt, witch, executor, marquis.

(c) Give past tense and perfect participle of:—shear, dive, plead, weave, burst. (Where a verb belongs to two conjugations give two sets of forms.)

4. Analyse the following words so as to show the prefix, the suffix, and the root, giving the meaning of the root and the value of the prefix and the suffix:—contradiction, untruthful, irradiate, apathetic.

5. “Modern English is the descendant of the Midland dialect, which was spoken between the Humber and the Thames.”

Give three reasons for the supremacy of this dialect over the others.

6. Give, in short sentences, examples of any *six* of the following:—

- (a) subjective possessive ;
- (b) ethical dative ;
- (c) emphatic verb-phrase ;
- (d) representative subject ;
- (e) absolute superlative ;
- (f) emphatic personal pronoun ;
- (g) nominative of address ;
- (h) expletive adverbial particle *or* introductory adverb ;
- (i) interrogative pronominal adjective ;
- (j) present passive verb-phrase.

7. What is meant by stop-consonants ; continuants ; high, low, and mid vowels ? Give examples of each.

Education Department, Ontario.

Annual Examinations, 1906.

PART II. JUNIOR TEACHERS.

ARITHMETIC AND MENSURATION.

Examiners: { W. H. BALLARD, M.A.
J. MATHESON, M.A.
W. PRENDERGAST, B.A.

1. Find the product by the contracted method, of 27.86895×0.384701 , correct to four decimal places.
2. The length of a field is 20 rods, and the width 16 rods. Find to the nearest foot the side of a square field of the same area.
3. The edges of a cube are each increased 10 per cent. What per cent. is the area of the surface increased? If this adds 3150 square inches to the surface, what was the original edge of the cube?
4. A note for \$292, drawn on Jan. 14th, 1905, at 4 months, is discounted at a bank on Feb. 19th at 5%. How much does the bank give for it?
5. \$250 is deposited in a bank which pays 4% per annum and compounds the interest every 6 months, dating from the time of deposit. How much interest accumulates in two years?
6. A triangular prism is 33 inches long, and the sides of the triangular end are 13 inches, 14 inches and 15 inches, respectively. Find the volume.
7. How many circular coins, 1 inch in diameter and $\frac{1}{8}$ inch thick, are equal in volume to a solid metal cylinder 12 inches long and 4 inches in diameter?
8. A man wishes to purchase sufficient $9\frac{1}{4}\%$ stock, quoted at $115\frac{1}{2}$, to give him an annual income of \$850. How much will the stock cost him, if he pays $\frac{1}{8}\%$ brokerage in buying it?
9. A commission merchant sold a quantity of flour for \$2550, and after deducting a selling commission of 4% and a buying commission of 2%, he invested the proceeds in tea at 30 cents per pound. How many pounds of tea does he buy, and what is his total commission?

Education Department, Ontario.

Annual Examinations, 1906.

PART II. JUNIOR TEACHERS.

CHEMISTRY.

Examiners: { F. B. KENRICK, PH.D.
J. C. McLENNAN, PH.D.
W. H. PIERSOL, B.A.

1. Why are diamond and charcoal said to be the same element? Describe two other cases in which elements occur in allotropic modifications.

2. A *solution* is a homogeneous substance whose composition may be varied gradually. A *chemical compound* is a homogeneous substance whose composition cannot be varied gradually.

(a) State to which class each of the following substances belongs, giving your reasons in each case:—water, air, lime-water, carbon dioxide, sea water.

(b) How do both these classes of substances differ from *mixtures*?

3. Give names to the substances whose formulae are written below, and indicate in each case whether the substance is an acid, base, or salt; or would form an acid or base by uniting with water:— HCl , Ca(OH)_2 , CaO , CaCO_3 , N_2O_5 , NH_4OH , HNO_3 , H_2SO_3 , CO_2 , $(\text{NH}_4)_2\text{CO}_3$, SO_3 .

4. Write equations expressing the action of:—

(a) ammonia on sulphuric acid;

(b) carbon dioxide on slaked lime;

(c) sodium on water;

(d) heat on potassium chlorate.

5. Give the properties and two methods of preparation of chlorine and of sulphur dioxide, and mention some practical uses to which these substances are put.

6. It is found that 27.3 grammes of carbon unite with 72.7 grammes of oxygen to give 100 grammes of another chemical substance. The combining weight of oxygen is 16 (O) and of carbon, 12 (C). From these data write the chemical equation expressing this reaction, giving all the arithmetical work involved.

Education Department, Ontario.

Annual Examinations, 1906.

PART II. JUNIOR TEACHERS.

GEOGRAPHY.

Examiners: { F. B. KENRICK, PH.D.
J. C. McLENNAN, PH.D.
W. H. PIERSOL, B.A.

1. Give an account of the Glacial or Great Ice Age in Ontario, under the following heads:—

- (a) The ice sheet itself;
- (b) Its effect on animal and plant life;
- (c) Existing evidences of its occurrence.

2. (a) How is a volcano formed?

(b) Describe a typical volcanic eruption and its effect on the surrounding country.

(c) What evidence is there that volcanoes formerly existed in Canada?

3. (a) Draw an outline map of the North Atlantic Ocean, showing the currents in it and their direction of flow.

(b) Point out the effect these currents have on the climate of the countries along the shores.

4. Explain, using diagrams, the various eclipses of the sun and of the moon.

5. Give an account of the chief Canadian waterways, natural and artificial. Tell briefly of their influence in the settlement of the country.

Education Department, Ontario.

Annual Examinations, 1906.

PART II. JUNIOR TEACHERS.

ALGEBRA.

Examiners: $\left\{ \begin{array}{l} \text{W. H. BALLARD, M.A.} \\ \text{J. MATHESON, M.A.} \\ \text{W. PRENDERGAST, B.A.} \end{array} \right.$

1. Divide $256x^8 + 16x^4 + 1$ by $16x^4 - 4x^2 + 1$, using detached coefficients.

2. Resolve into factors:—

$$a^4 - a^2 - 12,$$

$$a^2 + b^2 - c^2 - 2ab,$$

$$a^3 - b^3 + c^3 + 3abc,$$

$$4a^4 + 1,$$

$$28a^2x^2 - 51abxy - 27b^2y^2.$$

3. If $A = pB + C$, $B = qC + D$, and $C = rD$, show that D is the H.C.F. of A and B .

4. If $\frac{a}{x} = \frac{b}{y} = \frac{c}{z}$ show that

$$(ax + by + cz)^2 = (a^2 + b^2 + c^2)(x^2 + y^2 + z^2).$$

5. Solve the equations:—

$$(a) \quad \frac{8x+5}{10} - \frac{9x-3}{7x+2} = \frac{4x-3}{5}.$$

$$(b) \quad \begin{array}{l} ax + by = c. \\ lx + my = n. \end{array}$$

$$(c) \quad \begin{array}{l} 6x + 7y + 5z = 57, \\ 5x - 4y + 3z = 22, \\ 3x + 6y - 4z = 1. \end{array}$$

$$(d) \quad \begin{array}{l} 3x + 4y = 24, \\ 2x^2 - 3y^2 = 5. \end{array}$$

$$(e) \quad \begin{array}{l} x^2 + 3y^2 = 37, \\ xy = 10. \end{array}$$

[OVER]

6. Find the square root of $4x^2(7+x^2+3a)+(3a+7)^2$.

7. Solve the equation $px^2+qx+r=0$, and find the condition under which the roots will be equal.

8. Solve the equation :—

$$\sqrt{x+2} + \sqrt{2}\sqrt{x+1} = \sqrt{6x+7}.$$

9. Sodding a lawn at 9 cents a square yard costs \$108. If the lawn had been 10 yards longer and 6 yards wider, the cost would have been half as much again. Find the dimensions of the lawn.

Education Department, Ontario.

Annual Examinations, 1906.

PART II. JUNIOR TEACHERS.

ENGLISH POETICAL LITERATURE.

Examiners : { A. R. BAIN, M.A.
E. A. HARDY, B.A.
W. S. W. McLAY, M.A.

1. Such, in the fond illusion of my heart,
Such picture would I at that time have made.

Describe in detail the picture of Peele castle as depicted by the painter, and as the poet would have painted it "at that time".

2. Indicate with precision the connection in which any *five* of the following passages occur;—

- (a) And what is music then? Then music is
Even as the flourish when true subjects bow
To a new-crowned monarch.
- (b) And now 'twas like all instruments,
Now like a lonely flute,
And now it is an angel's song,
That makes the heavens be mute.
- (c) I felt a sense of pain when I beheld
The silent trees, and saw the intruding sky.
- (d) This seraph-band, each waved his hand :
It was a heavenly sight !
They stood as signals to the land,
Each one a lovely light.
- (e) We must be free or die, who speak the tongue
That Shakespeare spake.
- (f) Nor doth the example fail to cheer
Me, conscious that my leaf is sere,
And yellow on the bough.
- (g) I forgive him—but
'T were better to be dumb than to talk thus.
- (h) You may as well forbid the mountain pines
To wag their high tops and to make no noise,
When they are fretten with the gusts of heaven.

[OVER]

3. Stern Daughter of the Voice of God !
 O Duty ! if that name thou love
 Who art a light to guide, a rod
 To check the erring, and reprove ;
 5 Thou who art victory and law
 When empty terrors overawe ;
 From vain temptations dost set free,
 And calm'st the weary strife of frail humanity !

.

- Through no disturbance of my soul,
 10 Or strong compunction in me wrought,
 I supplicate for thy control ;
 But in the quietness of thought :
 Me this unchartered freedom tires ;
 I feel the weight of chance desires :
 15 My hopes no more must change their name,
 I long for a repose that ever is the same.

- Stern Lawgiver ! yet thou dost wear
 The Godhead's most benignant grace ;
 Nor know we anything so fair
 20 As is the smile upon thy face :
 Flowers laugh before thee on their beds
 And fragrance in thy footing treads ;
 Thou dost preserve the stars from wrong ;
 And the most ancient heavens, through thee, are strong.

- 25 To humbler functions, awful Power !
 I call thee : I myself commend
 Unto thy guidance from this hour ;
 Oh, let my weakness have an end !
 Give unto me, made lowly wise,
 30 The spirit of self-sacrifice ;
 The confidence of reason give ;
 And in the light of truth thy bondman let me live.

(a) Explain clearly the meaning of:—"Daughter of the Voice of God" (line 1); "Thou who art victory and law" (line 5); "Or strong compunction in me wrought" (line 10); "Thou dost preserve the stars from wrong" (line 23); "The confidence of reason" (line 31).

(b) Show the force of the following epithets in the above passage:—"empty" (line 6); "frail" (line 8); "chance" (line 14); "awful" (line 25).

(c) "Yet thou dost wear" etc. (line 17). Indicate clearly the adversative idea expressed by "yet".

(d) "To humbler functions" (line 25). Humbler than what? What are these humbler functions?

4. Quote *one* of the following:—

- (a) "The Solitary Reaper." (The whole poem.)
- (b) "Earth hath not anything to show more fair." (The whole sonnet.)
- (c) First six stanzas of "The Tables Turned."
- (d) Eight consecutive stanzas of "The Ancient Mariner."
- (e) The passage beginning "How sweet the moonlight sleeps upon this bank," (twelve lines); *and also* the one beginning "The man that hath no music," (six lines).

5. In *The Ancient Mariner*, quote, or refer definitely to, (a) three brief descriptive passages characterized by truth to nature, and (b) three striking similes.

6. (a) Carefully outline the drift of the conversation of Bassanio, Shylock, and Antonio, in *The Merchant of Venice*, Act I., Scene 3—the scene of the negotiations for the loan.

(b) Point out details of the scene that serve to leave the impression that Antonio is running a serious risk in signing such a bond as Shylock proposes.

7. Mention the purposes served in the play by Launcelot.

8. Dost thou* look back on what hath been,
 As some divinely gifted man,
 Whose life in low estate began
 And on a simple village green ;

 Who breaks his birth's invidious bar,
 And grasps the skirts of happy chance,
 And breasts the blows of circumstance,
 And grapples with his evil star ;

 Who makes by force his merit known
 And lives to clutch the golden keys,
 To mould a mighty state's decrees,
 And shape the whisper of the throne ;

 And moving up from high to higher,
 Becomes on Fortune's crowning slope
 The pillar of a people's hope,
 The centre of a world's desire ;

 Yet feels, as in a pensive dream,
 When all his active powers are still,
 A distant dearness in the hill,
 A secret sweetness in the stream,

[OVER]

* The poet's dead friend, whom he thinks of as leading in the other world a higher and larger life than is possible to those on earth.

The limit of his narrower fate,
While yet beside its vocal springs
He play'd at counsellors and kings,
With one that was his earlier mate ;
Who ploughs with pain his native lea
And reaps the labor of his hands,
Or in the furrow musing stands :
“Does my old friend remember me ?”

(a) Without going specially into an explanation of details, outline the main thought of the above poem.

(b) Give briefly and simply in your own words the meaning of the following passages :—

- (i) Grasps the skirts of happy chance.
- (ii) Breasts the blows of circumstance.
- (iii) To mould a mighty state's decrees.
- (iv) The pillar of a people's hope.
- (v) The limit of his narrower fate.
- (vi) Its vocal springs.

Education Department, Ontario.

Annual Examinations, 1906.

PART II. JUNIOR TEACHERS

ENGLISH COMPOSITION.

Examiners: { A. R. BAIN, M.A.
E. A. HARDY, B.A.
W. S. W. MCLAY, M.A.

NOTE.—*The candidate will write on ONE and only one of the themes indicated below. All names must of course be fictitious.*

1. What it means to be a good citizen.
2. Our Christmas tree. (A descriptive account of a real or an imaginary Christmas tree.)
3. The relation of electrical development from waterpower to the future of Ontario.
4. Scenes at the Fall Fair.
5. The favorite occupations of my early years.

Education Department, Ontario.

Annual Examinations, 1906.

PART II. JUNIOR TEACHERS.

GEOMETRY.

Examiners: { W. H. BALLARD, M.A.
J. MATHESON, M.A.
W. PRENDERGAST, B.A.

1. If the three sides of a triangle be equal, respectively to the three sides of another, prove that the triangles are equal in every respect.

2. Describe a rectangle that shall be equal to a given rectilinear figure.

3. If two triangles have two sides of the one equal to the two sides of the other, but the contained angles unequal, prove that the base of the triangle that has the greater contained angle is greater than the base of the other.

4. If a straight line be divided into two equal and also internally into two unequal segments, prove that the sum of the squares on the two unequal segments is double the sum of the squares on half the line and on the line between the points of section.

5. Prove that the diameter is the greatest chord in a circle; and of all others that which is nearer to the centre is greater than one more remote.

Conversely: The greater chord is nearer to the centre than the less.

6. From a given circle cut off a segment which shall contain an angle equal to a given angle.

7. From two given points on the same side of a given straight line, draw two lines that shall meet in that line and make equal angles with it.

[OVER]

8. If a line be drawn from the vertical angle of an isosceles triangle to the middle point of the base, prove that any point in it is equally distant from the extremities of the base of the triangle.

9. The following rule is sometimes given for trisecting a given straight line:—Upon the given line describe an equilateral triangle, bisect the angles at the base, through the point at which bisectors meet draw lines parallel to sides of triangle and cutting the base. Prove that the rule is correct.

10. Construct a triangle, having given the base, the vertical angle and one other side.

11. Two circles intersect at A and B , and through A diameters, AC and AD are drawn. Shew that C, B, D are in the same straight line.

Education Department, Ontario.

Annual Examinations, 1906.

JUNIOR MATRICULATION AND PART II. JUNIOR TEACHERS.

LATIN AUTHORS AND GRAMMAR.

Examiners: { G. W. JOHNSTON, PH.D.
J. MACNAUGHTON, M.A.
J. C. ROBERTSON, M.A.

1. Translate into English:—

(a) Hic etsi male rem gesserat, tamen tantas habebat reliquias copiarum, ut etiam tum iis opprimere posset hostes. Iterum ab eodem gradu depulsus est. Nam Themistocles, verens ne bellare perseveraret, certiores eum fecit id agi, ut
5 pons, quem ille in Hellesponto fecerat, dissolveretur ac reditu in Asiam excluderetur; idque ei persuasit. Itaque qua sex mensibus iter fecerat, eadem minus diebus triginta in Asiam reversus est seque a Themistocle non superatum, sed conservatum judicavit. Sic unius viri prudentia Graecia liberata est
10 Europaeque succubuit Asia. Haec est altera victoria, quae cum Marathonio possit comparari tropaeo. Nam pari modo apud Salamina parvo numero navium maxima post hominum memoriam classis est devicta.

(b) At Sugambri ex eo tempore, quo pons institui coeptus
15 est, fuga comparata hortantibus iis, quos ex Tencteris atque Usipetibus apud se habebant, finibus suis excesserant suaque omnia exportaverant seque in solitudinem ac silvas abdiderant. Caesar paucos dies in eorum finibus moratus omnibus vicis aedificiisque incensis frumentisque succisis se in fines
20 Ubiorum recepit, atque iis auxilium suum pollicitus, si ab Suebis premerentur, haec ab iis cognovit: Suebos, posteaquam per exploratores pontem fieri comperissent, more suo concilio habito nuntios in omnes partes dimisisse, ut de oppidis demigrarent, liberos, uxores suaque omnia in silvis depone-
25 rent, atque omnes, qui arma ferre possent, unum in locum convenirent: hunc esse delectum medium fere regionum earum, quas Suebi obtinerent; hic Romanorum adventum expectare atque ibi decertare constituisse.

[OVER]

2. Explain the case of the following words, by stating to what class of the genitive, dative, etc., they respectively belong:—*iis* (l. 2), *reditu* (l. 5), *eadem* (l. 7), *numero* (l. 12), *hominum* (l. 12), *quo* (l. 14), *iis* (l. 15), *finibus* (l. 16), *dies* (l. 18), *more* (l. 22), *regionum* (l. 26), *Romanorum* (l. 27).

3. (a) Explain the mood of *posset* (l. 2), *dissolveretur* (l. 5), *convenirent* (l. 26); and the mood and tense of *premerentur* (l. 21).

(b) Explain the difference in mood of (*quem*) *fecerat* (l. 5) and (*quas*) *obtinerent* (l. 27).

(c) What is the rule governing the use of the passive voice in *coeptus est* (l. 14)?

4. What form would the following words have in *oratio recta* (in Latin):—*comperissent* (l. 22), *dimisisse* (l. 23), *hunc esse delectum* (l. 26), *obtinerent* (l. 27)?

5. Give the principal parts of *depulsus est*, *dissolveretur*, *est devicta*, *succisis*, *premerentur*, *deponerent*.

6. Decline together (in the singular only), *more suo*, *unum locum*; (in the plural only) *finibus suis*; and (in both singular and plural) *eo tempore*, *omnibus aedificiis*.

7. What does Caesar say of the geography of Britain (its situation, extent, climate, etc.)?

8. Translate into English:—

Hic vero ingentem pugnam, ceu cetera nusquam
bella forent, nulli tota morerentur in urbe,
sic Martem indomitum, Danaosque ad tecta ruentes
cernimus, obsessumque acta testudine limen.
Haerent parietibus scalae, postesque sub ipsos
nituntur gradibus, clipeosque ad tela sinistris
protecti objiciunt; prensant fastigia dextris.
Dardanidae contra turres ac tecta domorum
culmina convellunt; his se, quando ultima cernunt,
extrema jam in morte parant defendere telis;
auratasque trabes, veterum decora alta parentum,
devolvunt; alii strictis mucronibus imas
obsedere fores; has servant agmine denso.
Instaurati animi regis succurrere tectis,
auxilioque levare viros, vimque addere victis.

9. (a) Scan lines 9 and 10 of the extract (*culmina telis*), indicating clearly each syllable and its quantity.

(b) What parts of what verbs are *forent* and *morerentur*?

(c) What is the nominative singular of *parietibus* and *decora*?

10. Translate the following, and explain briefly what is referred to in each case:—

(a) Timeo Danaos et dona ferentes.

(b) Sanguine placastis ventos et virgine caesa,
cum primum Iliacas, Danaï, venistis ad oras.

(c) Venit summa dies et ineluctabile tempus.

(d) Dis aliter visum.

(e) Quantum mutatus ab illo
Hectore, qui redit exuvias indutus Achilli.

11. What special interest had the Romans in the story of Aeneas' adventures?

Education Department, Ontario.

Annual Examinations, 1906.

JUNIOR MATRICULATION AND PART II. JUNIOR TEACHERS.

LATIN COMPOSITION AND SIGHT TRANSLATION.

Examiners: { G. W. JOHNSTON, PH.D.
J. MACNAUGHTON, M.A.
J. C. ROBERTSON, M.A.

A.

Translate into Latin:—

1. They made a three days' journey in a single night.
2. The larger camp was twelve miles distant from the enemy.
3. I have never seen such waves as are caused (*fio*) in our sea.
4. They were so terrified by his approach that they abandoned all their villages.
5. Not obtaining this they asked him to give them an opportunity of sending ambassadors to the Gauls.
6. Do you fear that they will lay waste the territory of our allies?
7. We must despatch envoys to complain of the wrongs inflicted by the Suebi (*use subjective genitive*).
8. The other soldiers were commanded (*use impero*) to assemble at the other harbour for the purpose of setting out for Britain.
9. He said it was his custom not to quit fighting until he had captured or slain all who had ventured to take up arms.
10. Twenty years before I asked you whether you wished to settle in Italy and you said you did not.
11. He told his men not to be alarmed by the shouting of the enemy.
12. If they should withstand the charge firmly they would be victorious.
13. What shall we do? It is hard to make up our minds to return home.

[OVER]

B.

Translate into English:—

Eodem fere tempore Publium Crassum cum cohortibus compluribus et magno numero equitatus in Aquitaniam proficisci jubet, ne ex his nationibus auxilia in Galliam mittantur. Itaque re frumentaria provisa, Crassus in Sontiatium fines exercitum introduxit. Cujus adventu cognito, Sontiates magnis copiis coactis equitatuque, quo plurimum valebant, in itinere agmen nostrum adorti, primum equestre proelium commiserunt; deinde equitatu suo pulso, subito pedestres copias, quas in insidiis collocaverant, ostenderunt. Hi nostros disiectos (*dispersed*) adorti proelium renovant. Pugnatum est diu atque acriter cum, Sontiates, magnam laudem superioribus victoriis consecuti, in sua virtute totius Aquitaniae salutem positam esse (*depended upon*) putarent. Tandem confecti (*exhausted*) vulneribus hostes terga verterunt.

Education Department, Ontario.

Annual Examinations, 1906.

JUNIOR MATRICULATION.

FRENCH AUTHORS, GRAMMAR, AND SIGHT TRANSLATION.

Examiners: { J. W. G. ANDRAS, PH.D.
P. EDGAR, PH.D.
J. SQUAIR, B.A.

A

1. Translate into English:—

Ce n'est pas elle qu'attend le petit malade, le docteur pas davantage. Ceux qu'il attend, tenez, les voilà qui arrivent. Trois campagnards: un homme en veste ronde, une petite femme courte en bonnet blanc, une fillette en robe longue, trop longue, les manches jusqu'au bout des doigts; le père, la mère, la petite sœur.

Ils entrent: l'homme, discrètement, très circonspect, un peu timide; la mère, tout de go, les bras tendus en avant jusqu'à ce qu'elle tienne embrassée, étouffée sur sa poitrine, la chère petite tête de l'enfant. Le père serre la main du malade, la fillette se hausse sur la pointe des pieds jusqu'aux joues penchées vers ses lèvres.

B.

2. Translate into English:—

De ta tige détachée,
Pauvre feuille desséchée,
Où vas-tu?—Je n'en sais rien.
L'orage a brisé le chêne
5 Qui seul était mon soutien;
De son inconstante haleine,
Le zéphyr ou l'aquilon
Depuis ce jour me promène
De la forêt à la plaine,
10 De la montagne au vallon.
Je vais où le vent me mène
Sans me plaindre ou m'effrayer,
Je vais où va toute chose,
Où va la feuille de rose
15 Et la feuille de laurier.

[OVER]

3. Give the second person singular of the present subjunctive of *sais* (l. 3), *plaindre* (l. 12); and the first person plural of the present subjunctive of *mène* (l. 11).

4. Why are *rose* (l. 14), and *laurier* (l. 15), used without the definite article?

C.

5. Translate into English:—

PERRICHON.—Comment! Allons donc! . . . Est-il bête, cet animal-là!

MADAME PERRICHON.—Maintenant que nous voilà de retour, j'espère que tu vas prendre un parti . . . Nous ne
5 pouvons tarder plus longtemps à rendre réponse à ces deux jeunes gens . . . deux prétendus dans la maison . . . c'est trop! . . .

PERRICHON.—Moi, je n'ai pas changé d'avis . . . j'aime mieux Daniel!

10 MADAME PERRICHON.—Pourquoi?

PERRICHON.—Je ne sais pas . . . je le trouve plus . . . enfin, il me plaît, ce jeune homme!

MADAME PERRICHON.—Mais l'autre . . . l'autre t'a sauvé!

PERRICHON.—Il m'a sauvé! Toujours le même refrain!

15 MADAME PERRICHON.—Qu'as-tu à lui reprocher? Sa famille est honorable, sa position excellente . . .

PERRICHON.—Mon Dieu! je ne lui reproche rien . . . je ne lui en veux pas, à ce garçon!

MADAME PERRICHON.—Il ne manquerait plus que ça!

20 PERRICHON.—Mais je lui trouve un petit air pincé.

MADAME PERRICHON.—Lui!

PERRICHON.—Oui, il a un ton protecteur . . . des manières . . . il semble toujours se prévaloir du petit service qu'il m'a rendu . . .

6. Tell enough of the story to explain the above passage.

7. Give the third singular of the imperfect subjunctive of:—
allons (l. 1), *espère* (l. 4), *prendre* (l. 4), *pouvons* (l. 5), *veux* (l. 18).

8. Give the adverb derived from the adjective *excellente* (l. 16).

D.

9. Translate into English:—

JEAN, *paraissant et annonçant*.—Le commandant Mathieu.

PERRICHON.—Hein?

ARMAND.—Lui?

PERRICHON.—Vous me disiez qu'il était en prison!

5 LE COMMANDANT, *entrant*.—J'y étais, en effet, mais j'en suis sorti. (*Apercevant Armand.*) Ah ! monsieur Armand ! je viens de consigner le montant du billet que je vous dois, plus les frais....

ARMAND.—Très bien, commandant.... Je pense que vous
10 ne me gardez pas rancune.... vous paraissiez si désireux d'aller à Clichy.

LE COMMANDANT.—Oui, j'aime Clichy.... mais pas les jours où je dois me battre. (*A Perrichon.*) Je suis désolé, monsieur, de vous avoir fait attendre.... Je suis à vos ordres.

10. *Clichy* (l. 12). To what is the reference ?

11. *attendre* (l. 14). Translate into French :—(a) He made the children wait ; (b) I did not expect that.

E.

12. Translate into English :—

Il y avait une fois une grande forêt silencieuse. Le vent y parlait doucement aux arbres et les feuilles répondaient et chuchotaient sans cesse ; les fleurs causaient avec le ruisseau qui murmurait toujours ; les insectes affairés volaient et bourdonnaient ; mais dans toute la forêt on n'entendait aucun chant, pas un gazouillement, pas un cri.

Un jour le Printemps arriva dans cette grande forêt silencieuse. Il arriva vêtu de vert pale et suivi d'une nuée d'oiseaux qui se perchèrent partout sur les arbres. Le Printemps dit :—Mes chers oiseaux, voici pour vous un bien beau domaine, il est orné de fleurs, et vous y trouverez des fruits, des graines, des insectes et des vers pour vous nourrir. Vivez joyeusement dans les branches, mais écoutez-moi bien, ne quittez jamais votre verte demeure, si ce n'est pour vous élever bien haut, au-dessus des prairies pour chanter un hymne de louanges, ou au-dessus de la cime des grands arbres pour contempler librement le vaste ciel bleu. Et si, par hasard, vous apercevez au loin des hommes ou des bêtes, n'allez pas voir ce qu'ils font, ce qu'ils mangent, et à quoi ils passent leurs temps ; gardez-vous bien de les envier. Demeurez toujours dans votre grande et belle forêt ; croyez-moi, si vous la quittez, vous cesserez bientôt d'être les joyeux et heureux oiseaux des bois.

Tous les oiseaux promirent d'obéir au Printemps, et le Printemps leur enseigna à construire leurs nids et à chanter leurs beaux chants.

Education Department, Ontario.

Annual Examinations, 1906.

JUNIOR MATRICULATION.

FRENCH COMPOSITION.

Examiners : { J. W. G. ANDRAS, PH.D.
P. EDGAR, PH.D.
J. SQUAIR, B.A.

A.

Translate into French :—

1. (a) Has your father received his book? No sir, not yet.
(b) Who spoke to you of that affair? It was my brother.
(c) What makes that noise? It is the wind.
(d) Where is the house of which you were speaking?
2. (a) There is my hat. Give it to me, if you please.
(b) The gentleman tells me that he does not like you.
(c) He went away with her and she with him.
(d) You and I are here together. We can do this work.
3. (a) I wish that you would come here to-morrow.
(b) We are glad that you have not forgotten us.
(c) Although we are poor, we are happy.
(d). Our friends will be glad to see you if you go to their town.
4. (a) A good horse ought to be well treated.
(b) Our uncle has a better house than our neighbors.
(c) Those children like apples better than pears.
(d) This lesson is more difficult than yesterday's lesson.
5. (a) On the fifth of March it snowed and rained.
(b) We paid three hundred and eighty-two francs for that horse.
(c) William the Third became king forty years after the death of Charles the First.
(d) How old is that gentleman? He is seventy-eight years old.

[OVER]

Translate into French:—

6. (a) Have you anything in the box? Yes sir, I have a pencil.
(b) If anyone said that to me, I should not believe it.
(c) Everybody was in the room and everybody spoke to me.
(d) Did you see anybody in the house? Nobody was there.

B.

Translate into French:—

Monsieur Perrichon is a carriage-maker who has become rich in his trade. He has a wife and daughter, and the three make a trip to Switzerland. They arrive early at the station. They get their tickets and register their baggage. It is a warm day and Monsieur Perrichon is in a perspiration. He runs everywhere. Finally they get into the carriage. The train starts and they arrive in Switzerland. There Monsieur Perrichon falls into a hole and a young gentleman rescues him. Monsieur Perrichon also makes a mistake in spelling. The major corrects it. Monsieur Perrichon is offended and wishes to fight a duel with the major. Finally everything is arranged and everybody is happy.

Education Department, Ontario.

Annual Examinations, 1906.

JUNIOR MATRICULATION.

GERMAN AUTHORS, GRAMMAR, AND SIGHT TRANSLATION.

Examiners: { J. W. G. ANDRAS, PH.D.
P. EDGAR, PH.D.
J. SQUAIR, B.A.

A.

1. Translate into English :—

Über der Fläche des Meeres ruht oft ein Nebel, das ist ihr Witwenschleier; der Bräutigam des Meeres ist tot, sein Schloß und seine Stadt ist sein Mausoleum. Kennst du diese Stadt? Nie hörte sie das Rollen der Räder oder den Hufschlag des Pferdes in ihren Straßen, dort schwimmt nur der Fisch herum, und gespensterhaft fliegt die schwarze Gondel über das grüne Wasser. „Ich will“ sagte der Mond, „dir das Forum der Stadt, den größten Platz derselben, zeigen, und du wirst dich in die Stadt der Märchen versetzt glauben. Das Gras wuchert zwischen den breiten Fliesen, und in der Morgendämmerung flattern Tausende von Tauben um den freistehenden hohen Turm herum. Auf drei Seiten bist du von Bogengängen umgeben.

2. Decline die schwarze Gondel, singular and plural; das grüne Wasser in the singular; der große Platz, singular and plural. Decline also eine schwarze Gondel, and ein großer Platz, singular and plural; and grünes Wasser without any article.

3. In the above passage explain the constructions :—über der Fläche, über das grüne Wasser, in die Stadt.

4. Write the infinitive, past imperfect, and past participle, as well as the third person singular of the present tense of the verbs to which the following words belong :—kennst, schwimmt, fliegt, zeigen, umgeben, versetzt.

[OVER]

5. Translate into English :—

So ist's recht. Nun geht acht und verliert nicht das Gleichgewicht. Sitzt ihr fest? Ja, Fräulein Nicotiana.... Der Spott verdroß den jungen Burschen, und er hätte am liebsten auf das Abenteuer ganz Verzicht geleistet, aber der Entschluß kam zu spät. Wie eine aufstiegender Krähe erhob sich die Tabakspfeife auf welcher er rittlings saß und fort ging's durch die Luft wie Windes-sausen. Die Elfe flog wegweisend voran.

6. Translate into English :—

Ich tret' in die Burgkapelle
Und suche des Ahnherrn Grab;
Dort ist's, dort hängt vom Pfeile
Das alte Gewaffen herab.

Noch lesen umflort die Augen
Die Züge der Inschrift nicht,
Wie hell durch die bunten Scheiben
Das Licht herüber noch bricht.

7. In the extract of question 5, parse the following verbs, giving tense, kind of verb, the three principal parts as in question 4, and the subject of each :—verliert, verdroß, saß, erhob. Explain the difference between hangen and hängen, sitzen and setzen, schwimmen and schwemmen.

8. Translate into English :—

„Und wie hast du's mit der Kerze gehalten, die du deinem Schutzpatron gelobt hast, alter Sünder?“ „Herr,“ erwiderte der Waldhüter, „ich bin mein Lebtag eine arme Haut gewesen; woher hätte ich die Kerze nehmen sollen? Unsereiner ist froh wenn er sein Stück Brot hat und manchmal einen Trunk dazu. Freilich lastet es schwer auf meinem Gewissen daß ich dem Heiligen bis heut meine Schuld nicht abzahlen konnte. Vielleicht geben mir die Herren eine kleine Beisteuer, damit Sanct Hubertus zu seiner Kerze kommt.“ Da lachten die Herren wiederum. Jeder zog seinen Beutel und in den alten Hut des Jägers fiel ein Regen von Silberstücken.

Ob aber Sanct Hubertus seine Kerze bekommen hat, das wird er am besten selber wissen.

B.

9. Translate into English :—

(a) Der rasende Nordwind hatte seine Stärke in einer stürmischen Nacht an einer erhabenen Eiche bewiesen. Nun lag sie gestreckt und eine Menge niedriger Sträucher lagen unter ihr zerschmettert. Ein Fuchs, der seine Grube nicht weit davon hatte, sah sie des Morgens darauf. Was für ein Baum! rief er. Hätte ich doch nimmermehr gedacht daß er so groß gewesen wäre.

(b) Sahest du nie die Schönheit im Augenblicke des Leidens,
Niemals hast du die Schönheit gesehen.
Sahst du die Freude nie in einem schönen Gesichte,
Niemals hast du die Freude gesehen.

(c) Der Pfarrer, ein Greis von siebenzig Jahren, hatte alle Tugenden eines Heiligen, und den einzigen Fehler, daß er wegen hohen Alters sehr harthörig war. Aber dafür predigte er desto erbaulicher und es hörte ihn jeder gern. Zwar predigte er beständig nur über zwei Sätze, als wenn seine ganze Religion darin wohnte. Entweder: „Kindlein, liebet euch unter einander“ oder: „Kindlein, die Tugungen des Himmels sind wunderbar.“

Education Department, Ontario.

Annual Examinations, 1906.

JUNIOR MATRICULATION.

GERMAN COMPOSITION.

Examiners : { J. W. G. ANDRAS, PH.D.
P. EDGAR, PH.D.
J. SQUAIR, B.A.

A.

Translate into German:—

1. He did not make a single mistake.
2. I will not send the flowers to them to-day.
3. Scarcely had he done this when I entered.
4. I do not want your help.
5. They seldom gave themselves the trouble.
6. We shall give a little concert this evening.
7. There were two horses in the stable.
8. The weather was very warm yesterday.
9. My son is hungry and so am I.
10. They seldom left the town.
11. I have not seen him come in.
12. You are surprised, are you not?
13. Do not send the flowers but the apples.
14. I hope you are satisfied now.
15. A large oak table stood in a corner of the room.
16. They met each other for the first time in town yesterday.
17. Let him who possesses learn to lose.
18. What you do not want to do yourself you can leave to me.
19. After he had reached the town it began to rain.
20. You were so kind as to give permission.
21. He was too young to understand.
22. Stand up that you may be able to see better.
23. If you had kept your word, I should have helped you.
24. If I were not Alexander, I would be Diogenes.
25. It would be better if you spoke to him yourself.

[OVER]

B.

Translate into German :—

It is winter and cold. The leaves are all gone. They have fallen to the ground and will never be green again. Yet that does not matter, for in the spring we shall see fresh buds and new leaves break forth. But now the ground is covered with snow. The birds can find no food. Winter is a sad time for the poor hungry little birds who cannot fly away to a warmer country.

Education Department, Ontario.

Annual Examinations, 1906.

JUNIOR MATRICULATION.

GREEK AUTHORS AND GRAMMAR.

Examiners: { G. W. JOHNSTON, PH.D.
J. MACNAUGHTON, M.A.
J. C. ROBERTSON, M.A.

A.

1. Translate into English :—

(a) οἱ δὲ Μένωνος στρατιῶται ἐπεὶ ταῦτ' ἤκουσαν, πείθονται καὶ διαβαίνουσι τὸν ποταμὸν πρὶν τοὺς ἄλλους λέγειν τί ποιήσουσι. Κῦρος δὲ ἤσθη τε καὶ τῷ στρατεύματι δι' ἀγγέλου ἔλεξεν. “Ἐγὼ μὲν, ὦ ἄνδρες, ἤδη ὑμᾶς ἐπαινῶ· εὐθὺς δὲ καὶ ὑμεῖς ἐμὲ ἐπαινεῖσετε, ἢ οὐκέτι ἐγὼ Κῦρός εἰμι.” οἱ μὲν δὴ στρατιῶται ἐν ἐλπίσι καλαῖς ἦσαν, Μένωνι δὲ καὶ δῶρα λέγεται πέμψαι. μετὰ δὲ ταῦτα διέβαινε τὸν ποταμὸν· εἶπετο δὲ καὶ τὸ ἄλλο στράτευμα αὐτῷ ἅπαν.

(b) τῶν δ' ἀρμάτων τὰ μὲν δι' αὐτῶν τῶν πολεμίων ἐφέροντο, τὰ δὲ καὶ διὰ τῶν Ἑλλήνων, κενὰ ἡμιόχων. οἱ δ' ἐπεὶ προΐδοιεν, διίσταντο· καὶ κατελήφθη τις ὥσπερ ἐν ἵπποδρόμῳ ἐκπλαγεῖς· καὶ οὐδεν μέντοι οὐδὲ τοῦτον παθεῖν ἔφασαν, οὐδ' ἄλλος τῶν Ἑλλήνων ἐν ταύτῃ τῇ μάχῃ ἔπαθεν οὐδεὶς οὐδέν, πλὴν ἐπὶ τῷ εὐωνύμῳ τοξευθῆναί τις ἐλέγετο. Κῦρος δ' ὁρῶν τοὺς Ἑλληνας νικῶντας τὸ καθ' αὐτοὺς καὶ διώκοντας, ἡδόμενος καὶ προσκυνούμενος ἤδη ὡς βασιλεὺς ὑπὸ τῶν ἀμφ' αὐτόν, οὐδ' ὥς ἐξήχθη διώκειν, ἀλλὰ ἐπεμελείτο ὅ τι ποιήσει βασιλεὺς. καὶ γὰρ ἤδει αὐτόν ὅτι μέσον ἔχοι τοῦ Περσικοῦ στρατεύματος.

2. In (a) decline ὑμᾶς, ἐλπίσι, ἅπαν, in all numbers, and the last in all genders. What is the difference between πέμψαι Μένωνι and πέμψαι πρὸς Μένωνα?

3. In (b) decline in all numbers and genders οὐδεὶς, ἄλλος, ὁρῶν. Explain the future indicative ποιήσει. What might take its place? Account for the mood and tense of προΐδοιεν, ἔχοι. Why the genitive ἡμιόχων? What is the force of the accumulated negatives?

[OVER]

4. Give the principal parts of ἐπαινέσετε, πέμψαι, εἶπετο in (a); and of ἡδόμενος, ἐξήχθη, ἐπεμελείτο, καταπλαγείς in (b).

5. Inflect with contractions the present optative active of νικῶντας, in (b).

6. Describe the battle of Cunaxa.

B.

7. Translate into English :—

(a) ἐν τ' ἄρα οἱ φῦ χειρί, ἔπος τ' ἔφατ', ἔκ τ' ὀνόμαζεν.
“τέκνον, τίπτε λιπὼν πόλεμον θρασὺν εἰλήλουθας;
ἦ μάλα δὴ τείρουσι δυσώνυμοι νῆες Ἀχαιῶν
μαρνάμενοι περὶ ἄστυ· σὲ δ' ἐνθάδε θυμὸς ἀνῆκεν
ἐλθόντ' ἐξ ἄκρης πόλιος Διὶ χεῖρας ἀνασχεῖν.
ἀλλὰ μὲν, ὄφρα κέ τοι μελιηδέα οἶνον ἐνείκω,
ὥς σπείσης Διὶ πατρὶ καὶ ἄλλοις ἀθανάτοισιν
πρῶτον, ἔπειτα δὲ καὐτὸς ὀνήσῃ, αἶ κε πίησθα,
ἀνδρὶ δὲ κεκμηῶτι μένος μέγα οἶνος ἀέξει,
ὥς τύνῃ κέκμηκας ἀμύνων σοῖσιν ἔτησιν.”

(b) πόσις δ' ἐλέησε νοήσας,
χειρὶ τέ μιν κατέρεξεν, ἔπος τ' ἔφατ' ἔκ τ' ὀνόμαζεν.
“δαιμονίη, μή μοί τι λήν ἀκαχίζεο θυμῷ·
οὐ γάρ τίς μ' ὑπὲρ αἶσαν ἀνὴρ Ἰδιδι προιάψει·
μοῖραν δ' οὐ τινά φημι πεφυγμένον ἔμμεναι ἀνδρῶν,
οὐ κακὸν οὐδὲ μὲν ἐσθλόν, ἐπὴν τὰ πρῶτα γένηται.

8. Translate literally ἐν τ' ἄρα οἱ φῦ χειρί in (a). What tense is φῦ? What does ἐν go with, and on what principle? Explain the case of οἱ and χειρί.

9. Parse, and give the principal parts of ἀνῆκεν, ἀνασχεῖν, κεκμηῶτι, ἐνείκω, πίησθα, in (a). Give the Attic forms of the last two.

10. What are the two possible ways of parsing ὀνήσῃ?

11. Why the dative in ἔτησιν?

12. Scan line 1 (a), and line 3 (b), beginning δαιμονίη.

13. Tell the story of Bellerophon.

Education Department, Ontario.

Annual Examinations, 1906.

JUNIOR MATRICULATION.

GREEK SIGHT TRANSLATION AND COMPOSITION.

Examiners : { G. W. JOHNSTON, PH.D.
J. MACNAUGHTON, M.A.
J. C. ROBERTSON, M.A.

1. Translate into English :—

Καὶ οἱ ἄλλοι στρατηγὸι λέγουσιν ὡς Ξενοφῶν διανοεῖται ἄγειν τοὺς στρατιώτας ἐξαπατήσας εἰς Φᾶσιν. Ἀκούσαντες δ' οἱ στρατιῶται χαλεπῶς ἔφερον. Ἐπεὶ δὲ ἤσθάνετο Ξενοφῶν, ἔδοξεν αὐτῷ ὡς τάχιστα συναγαγεῖν τοὺς Ἑλληνας, καὶ ἐκέλευε τὸν κήρυκα συλλέγειν ἀγοράν. Οἱ δ' ἐπεὶ τοῦ κήρυκος ἤκουσαν, συνέδραμον ἐτοίμως. Ἐνταῦθα Ξενοφῶν τοὺς μὲν στρατηγούς οὐ αἰτιᾶται, λέγει δὲ ὧδε· Ἀκούω τινὰς διαβάλλειν, ὧ ἄνδρες, ἐμέ, ὡς ἐγὼ ἄρα ἐξαπατήσας ὑμᾶς μέλλω ἄγειν εἰς Φᾶσιν. Ἀκούσατε οὖν μου καὶ ἐὰν μὲν ἐγὼ φαίνωμαι ἀδικῶν, οὐ χρή με ἐνθένδε ἀπελθεῖν, πρὶν ἂν δῶ δίκην· ἐὰν δὲ φαίνωνται ἀδικοῦντες οἱ ἐμέ διαβάλλοντες, οὕτως αὐτοῖς χρήσθε, ὥσπερ ἄξιον ἐστίν. Ὑμεῖς δ' ἴστε δήπου, ὅθεν ἥλιος ἀνίσχει καὶ ὅπου δύεται· καὶ ὅτι, ἐὰν μὲν τις εἰς τὴν Ἑλλάδα μέλλῃ ἰέναι, πρὸς ἐσπέραν δεῖ πορεύεσθαι· ἦν δέ τις βούληται εἰς Φᾶσιν, τοῦμπαλιν πρὸς ἑῷ. Πῶς οὖν ἐγὼ ἂν δυναίμην ἐξαπατήσας ὑμᾶς ἄγειν εἰς Φᾶσιν;

διανοέομαι, *intend*.

ἀγορά, *assembly*.

ἐνθένδε = ἐντεῦθεν.

διδόναι δίκην, *be punished*.

δήπου, *I suppose*.

ἀνίσχω, *rise*.

δύομαι, *set*.

ἐσπέρα, *west*.

ἑως, *east*.

τοῦμπαλιν, *on the contrary*.

2. Translate into Greek :—

In many villages. The same heralds. The cavalry themselves. Of these cities. To all the men. What is clearer (σαφής)? Nothing. The largest armies. They give.

[OVER]

They have been stationed (τάττω). These things are better. Send (*use aorist*) faithful guards. I saw three small ships. They refused (φημί) to come (*use aorist of ἔρχομαι*).

3. Translate into Greek :—

- (a) Having defeated (νικάω) the enemy, let us pursue them to their camp.
- (b) Be ye brave and worthy of honor.
- (c) We shall be able to announce that the other soldiers are conquering.
- (d) Most men wish to be friendly to the king in order that they may do wrong and not be punished.
- (e) Next day, calling together all the guides, he consulted with them and asked (ἐρωτάω) what they advised (κελεύω) us to do.
- (f) They replied that he was coming (εἰμι) to a country full (πλήρης) of food (-supplies) and that he could easily support (τρέφω) an army until he returned (ἔκω) to his own country.

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JUNIOR MATRICULATION.

HISTORY.

Examiners : { A. R. BAIN, M.A.
E. A. HARDY, B.A.
W. S. W. McLAY, M.A.

PART A.—BRITISH AND CANADIAN

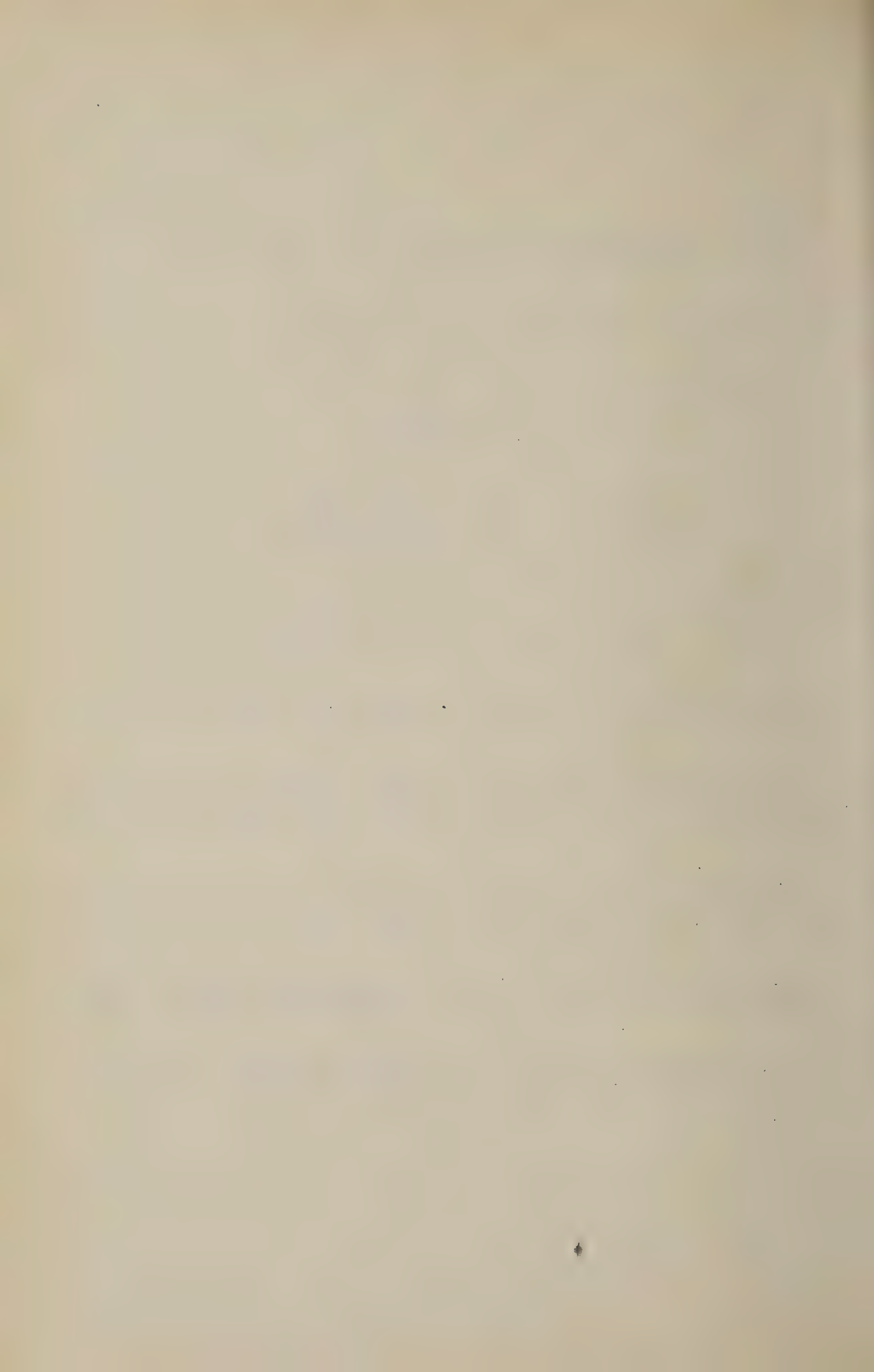
1. State the provisions of those Acts of the British Parliament which produced the revolt of the American colonies.

2. Give the provisions of the New Poor-Law of 1834, and of the English Education Act of 1870, commenting on the result of each.

3. Out of what circumstances did the war of 1812 arise? How were the points at issue dealt with by the Treaty of Ghent?

4. Mention the chief events in Canada from 1840 to 1867 which led up to the passing of the British North America Act.

5. Indicate the position of Badajos, Navarino, Inkerman, Lucknow, Lundy's Lane, and Fort Garry.



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JUNIOR MATRICULATION.

HISTORY.

Examiners : { A. R. BAIN, M.A.
E. A. HARDY, B.A.
W. S. W. McLAY, M.A.

PART B.—ANCIENT.

1. Sketch the career of Alcibiades.
2. State the origin, purpose and outcome of the Delian Confederacy.
3. (a) Relate the legend of Iason and the Argonauts, and the story of Romulus and Remus.
(b) What is the chief value of the early myths of Greece and Rome?
(c) Write notes on the Delphic Oracle of Apollo.
4. Give an account of the causes, course and result of Rome's struggle with Antiochus the Great.
5. Trace the career of Marius. Describe the changes he made in the army of Rome and the political effect of the alterations.
6. Where and for what noted are:— Argos, Artemisium, Salamis, Caudine Pass, Mylae, Aquae Sextiae, Rubicon, and Actium?

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JUNIOR MATRICULATION.

EXPERIMENTAL SCIENCE.

Examiners: { F. B. KENRICK, PH.D.
J. C. McLENNAN, PH.D.
W. H. PIERSOL, B.A.

PART A.—PHYSICS.

1. (a) A piece of wire 1.25 metres long and 0.25 millimetres in diameter weighs 25 centigrammes; calculate its specific gravity.

(b) How may the hydrostatic balance be used to determine the specific gravity of the wire described in (a)? Illustrate numerically.

2. (a) Compare the graduations of a Centigrade and a Fahrenheit thermometer.

(b) What readings on a Centigrade thermometer correspond to the readings (i) 10° below zero, and (ii) 10° above zero, on a Fahrenheit thermometer?

3. (a) Explain the principle of the barometer.

(b) State the relation (known as Boyle's law) connecting the volume and the pressure of a gas.

(c) Explain how to establish this law, experimentally, by a method involving the use of the barometer.

4. (a) Define (i) specific heat, (ii) latent heat of vaporisation.

(b) Describe and explain, giving a diagram, an experiment which shows that water can be frozen by subjecting it to rapid evaporation.

Education Department, Ontario.

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JUNIOR MATRICULATION.

EXPERIMENTAL SCIENCE.

Examiners: { F. B. KENRICK, PH.D.
J. C. McLENNAN, PH.D.
W. H. PIERSOL, B.A.

PART B.—CHEMISTRY.

1. Explain exactly why the formula H_2O is given to water vapor, not omitting to explain why H_4O_2 , for instance, would not express the facts just as well.

2. (a) Give the names of the substances whose formulae are:— H_2SO_4 , KNO_3 , N_2O , NH_3 , HCl , CO , HNO_3 , NH_4OH , SO_2 , NH_4Cl , H_2O_2 .

(b) Point out which of these substances are acids, and state what properties these acids have in common, and in what respects they differ from one another.

3. Give a method of preparation, with equations, of each of the following:—sulphur trioxide, chlorine, oxygen, ammonia, bleaching powder.

4. A steel cylinder of 10 litres capacity contains 500 grammes of carbon dioxide gas (CO_2). What is the approximate pressure of the gas at 17°C .? How many grammes of marble (CaCO_3) would be required to produce this quantity of gas?

($\text{Ca} = 40$, $\text{C} = 12$, $\text{O} = 16$. One mol. weight of gas fills 22.4 litres at 0° and 760 mm.)

Education Department, Ontario.

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JUNIOR MATRICULATION.

ARITHMETIC AND MENSURATION.

Examiners: $\left\{ \begin{array}{l} \text{W. H. BALLARD, M.A.} \\ \text{J. MATHESON, M.A.} \\ \text{W. PRENDERGAST, B.A.} \end{array} \right.$

1. Express $\frac{29}{37}$ as a decimal fraction, and $2.91\bar{8}$ as a vulgar fraction; and express the product of the two as a vulgar fraction in its lowest terms.

2. Using contracted methods, find the value, correct to 4 places of decimals, of:—

(a) 4.3652×6.80463 ;

(b) $2.9645 \div 4.68936$.

3. Find, correct to 4 places of decimals, the square root of 2.347.

4. A man bought a house for \$2375, and rented it for \$18 per month. He paid \$47 a year for taxes and repairs, and insured the house to cover its cost at $\frac{4}{5}\%$ annually. Find his net annual income, and the rate of interest to which it is equivalent on the money invested.

5. What is the area of a triangular field whose sides are 10, 17, and 21 rods, respectively?

6. Find the number of cubic feet of material in a solid circular wall 12 inches thick and 14 feet high, the inner diameter being 36 feet, 6 inches.

7. A man has \$1500 to invest. Find his annual income if:—

(a) he invests it in $3\frac{4}{5}\%$ stock, which is quoted at $93\frac{5}{8}$, brokerage $\frac{1}{8}$;

(b) he puts it in a bank which pays 4% per annum, compounded quarterly.

8. A merchant sent his agent \$1329.25 with instructions to buy certain goods, after deducting a sufficient sum to pay his own commission of $2\frac{1}{4}\%$. What is the value of the goods bought?

Education Department, Ontario.

Annual Examinations, 1906.

JUNIOR MATRICULATION.

ENGLISH GRAMMAR AND RHETORIC.

Examiners: { A. R. BAIN, M.A.
E. A. HARDY, B.A.
W. S. W. McLAY, M.A.

1. It did occur to him that he could perhaps get some help by praying for it; but as the prayers he said every evening were forms learned by heart, he rather shrank from the novelty and irregularity of introducing an extempore passage on a topic of petition for which he was not aware of any precedent. But one day, after he had broken down, for the fifth time, in the supines of the third conjugation, and Mr. Stelling, convinced that this must be carelessness, since it transcended the bounds of possible stupidity, had lectured him very seriously, pointing out that if he failed to seize the present golden opportunity of learning supines, he would live to regret it,—Tom determined to add a prayer that he might be able always to remember his Latin.

Analyse the above passage so as to show the various clauses (principal and subordinate) it contains, and indicate their relations to one another. In the case of subordinate clauses, be careful to state the grammatical function of each and point out the particular word each modifies.

2. Explain the grammatical values and relations of the italicised words in the following:—

- (a) He was struck almost *dead* with astonishment.
- (b) He was heard *to say* that he would have his revenge.
- (c) *To be sure*, I am only a servant.
- (d) His character rendered him *odious*.
- (e) The books cost a *dollar*.
- (f) A *drinking* fountain was in the square.
- (g) He lived *to regret* his action.
- (h) Fight the good *fight* with all thy might.
- (i) The tailor made the *man* a coat.

[OVER]

3. Point out rhetorical or grammatical defects in the following sentences, and recast the sentences so as to remove the defects :—

- (a) Special efforts are being made to secure uniformity in the tables and they will be fairly so.
- (b) After chatting for half an hour with my friends, good night was said. I then went to my room, and laid down to rest.
- (c) I wanted to have done well on this examination.
- (d) Hardly had we reached the station than he drove up.
- (e) The room was exceedingly tastefully decorated with palms and flowers.
- (f) The past year has been a busy one for this society, and our annual meeting will soon take place, when we hope to show that the year has been one of substantial progress, for which we are truly grateful.

4. Explain the difference in the logical value of the relative clauses in the following :—

Sailors, who are generally superstitious, will seldom set sail on Friday. A sailor who is not superstitious will set sail any day.

5. Explain the force of each *shall* and *will* in the following :—

- (a) I will speak, and the word that I shall speak shall be performed.
- (b) The officers will kindly report at noon.

6. Indicate the derivation of the following words :—sheriff, bonfire, fortnight, daisy, hussy, gosling.

7. Write explanatory notes on the methods used to form the plurals of the following :—ox, man, brother.

8. However, dexterity in composition, or *eloquence* as it may be called in a contracted sense of the word, is manifestly more or less necessary in every branch of literature, though its elements may be different in each. Poetical eloquence consists, first, in the power of illustration ; which the poet uses, not as the orator, voluntarily, for the sake of clearness or ornament, but almost by constraint, as the sole outlet and expression of intense inward feeling. This spontaneous power of comparison may, in some poetical minds, be very feeble ; these of course cannot show to advantage as poets. Another talent necessary to composition is the power of unfolding the meaning in an orderly manner. A poetical mind is often too impatient to explain itself justly ; it is overpowered by a rush of emotions, which sometimes want of power, sometimes the indolence of inward enjoyment, prevents it from enjoying. Nothing is more difficult than to analyse

the feelings of our own minds ; and the power of doing so, whether natural or acquired, is clearly distinct from experiencing them. Yet, though distinct from the poetical talent, it is obviously necessary to its exhibition. Hence it is a common praise bestowed upon writers, that they express what we have often felt, but could never describe. Besides these qualifications, poetical composition requires that command of language which is the mere effect of practice. The poet is a compositor ; words are his types ; he must have them within reach, and in unlimited abundance. Hence the need of careful labor to the accomplished poet,—not in order that his diction may attract, but that the language may be subjected to him. He studies the art of composition as we might learn dancing or elocution ; not that we may move or speak according to rule, but that, by the very exercise, our voice and carriage may become so unembarrassed as to allow of our doing what we will with them.

(a) State, in not more than *six* words, the topic of the above paragraph.

(b) To what class of prose composition does the paragraph belong ?

(c) Divide the paragraph into its main parts, and point out the means the writer uses to bind these parts into a unity.

(d) In the sentences beginning “The poet is a compositor” and “He studies the art”, point out any rhetorical device used by the writer to amplify the expression of his thought.

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JUNIOR MATRICULATION.

ALGEBRA.

Examiners: $\begin{cases} \text{W. H. BALLARD, M.A.} \\ \text{J. MATHESON, M.A.} \\ \text{W. PRENDERGAST, B.A.} \end{cases}$

1. Find the value of:—

$$\frac{a^2b}{7} + \sqrt{7ab(2c^2 - ab)} - (2a - 3b)^2,$$

when $a=3$, $b=2\frac{1}{3}$, $c=2$.

2. (a) Multiply $(a-b)^2$ by $(a+b)^3$.

(b) Divide $x^6 - 2x^3 + 1$ by $x^2 - 2x + 1$.

3. Find the factors of:—

$$\begin{aligned} x^6 - y^6, \\ 10x^2 + 11xy - 6y^2, \\ x^4 + x^2y^2 + y^4. \end{aligned}$$

4. Solve the equations:—

$$\begin{aligned} (a) \quad & \begin{cases} ax + by = c, \\ px + qy = r. \end{cases} \\ (b) \quad & \begin{cases} x - y - z = 1, \\ 5x - 10y + 2z = 14, \\ 3x + 2y - 5z = 4. \end{cases} \end{aligned}$$

5. Find the square root of:—

$$9x^4 - 24x^3y + 28x^2y^2 - 16xy^3 + 4y^4.$$

6. Solve the equations:—

$$\begin{aligned} (a) \quad & 64x^2 - 26x = 3, \\ (b) \quad & \frac{x-1}{x-4} + \frac{x-5}{x-6} = 4. \end{aligned}$$

[OVER]

7. Find the number whose square is less than the square of the next higher number by 37.

8. Solve the equations:—

$$(a) \quad \begin{cases} 3x - 4y = 4, \\ 2x^2 + 3xy = 56. \end{cases}$$

$$(b) \quad \begin{cases} xy = 6, \\ x^2 - y^2 = 5. \end{cases}$$

9. The first of two numbers added to four times the reciprocal of the second gives 4; the second diminished by three times the reciprocal of the first gives 3; find the numbers.

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JUNIOR MATRICULATION.

ENGLISH COMPOSITION.

Examiners: { A. R. BAIN, M.A.
E. A. HARDY, B.A.
W. S. W. McLAY, M.A.

NOTE — *The candidate will write on ONE, and only one, of the following subjects.*

1. The Story of Luke's Life.

(To the details of Luke's boyhood recorded in *Michael*, candidates may add such other appropriate incidents as will make a complete life.)

2. Persecution of the Jews.

3. King Edward VII.

4. The Town I Live in.

(In writing on this subject, do not mention the name of the town.)

5. A Barn Raising.

6. "Peace hath her victories no less renowned than war."

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JUNIOR MATRICULATION.

GEOMETRY.

Examiners: $\left\{ \begin{array}{l} \text{W. H. BALLARD, M.A.} \\ \text{J. MATHESON, M.A.} \\ \text{W. PRENDERGAST, B.A.} \end{array} \right.$

1. If two sides and the contained angle of one triangle be equal to two sides and the contained angle of another triangle, the two triangles shall be equal in every respect,—that is (*a*) the third sides shall be equal, (*b*) the remaining angles of the one triangle shall be equal to the remaining angles of the other triangle, (*c*) the areas of the two triangles shall be equal.

2. Describe a parallelogram that shall be equal to a given triangle and having one of its angles equal to a given angle.

3. Prove that the square on the hypotenuse of a right angled triangle is equal to the sum of the squares described on the other two sides.

4. If a straight line be divided into two equal and also internally into unequal segments, the rectangle contained by the unequal segments is equal to the difference between the square on half the line and the square on the line between the points of section.

5. Draw a tangent to a given circle from a given point.

6. Prove that an angle at the centre of a circle is double of an angle at the circumference that stands upon the same arc.

7. Prove that the sum of the exterior angles of a pentagon (formed by producing the sides in order) is equal to four right angles.

8. If *A* be the vertex of an isosceles triangle *ABC*, and *BA* produced so that *AD* equal *BA*, and *DC* be drawn; shew that *BCD* is a right angle.

[OVER]

9. If two sides of a quadrilateral be equal and parallel, prove that the quadrilateral is a parallelogram.

10. If a chord and a tangent of a circle be parallel, prove that the arc cut off by the chord is bisected at the tangent point.

11. Construct a triangle, having given the base, the altitude, and the length of the line from the vertex to the middle point of the base.

Education Department, Ontario.

Annual Examinations, 1906.

JUNIOR MATRICULATION.

ENGLISH LITERATURE.

Examiners: { A. R. BAIN, M.A.
E. A. HARDY, B.A.
W. S. W. McLAY, M.A.

1. Name the poem in which each of the following passages occurs, and locate the passage (either by quoting the line preceding and the line following, or by indicating its place in the order of thought in the poem) :—

- (a) Not with the mean and vulgar works of man,
But with high objects, with enduring things,
With life and nature ; purifying thus
The elements of feeling and of thought.
- (b) A spring of love gushed from my breast,
And I blessed them unaware.
- (c) Soft stillness and the night
Become the touches of sweet harmony.
- (d) Give all thou can'st ; high Heaven rejects the lore
Of nicely-calculated less or more.
- (e) Love, now a universal birth,
From heart to heart is stealing.
- (f) Thus ornament is but the guiled shore
To a most dangerous sea.

2. Explain carefully *four* of the following passages :—

- (a) We can feed this mind of ours
In a wise passiveness.
- (b) One impulse from a vernal wood
May teach you more of man,
Of moral evil and of good,
Than all the sages can.
- (c) As who pursued with yell and blow
Still treads the shadow of his foe.
- (d) From whom he bringeth sensible regrets.
- (e) In everything we are sprung
From earth's first blood, have titles manifold.

[OVER]

3. Point out two respects in which the poem, *The Green Linnet*, is characteristic of Wordsworth.

4. (a) Quote two passages of four lines each from *The Ancient Mariner*.

(b) Quote two passages of four lines each from *The Merchant of Venice*.

(c) Quote a passage of eight lines from any one of Wordsworth's sonnets.

5. Give, in not more than 20 lines, the substance of either Act I., Scene 1, of *The Merchant of Venice* (beginning "In sooth, I know not why I am so sad), or of Act IV., Scene 1, (beginning "What, is Antonio here? Ready, so please your grace.").

6. Name four of Portia's suitors (according to Nerissa's recital in Act I., Scene 2) who fail to try the test of the caskets. Give one characteristic of each, preferably in Portia's own words.

7. Tell, in not more than ten lines, the story of Part I. of *The Ancient Mariner*.

8. And ye, who dwell in the shadow
 Of the century-sculptured piles,
 Where sleep our century-honored dead,
 While the great world thunders overhead,
5 And far out, miles on miles,
 Beyond the throb of the mighty town
 The blue Thames dimples and smiles ;—
 Not yours alone the glory of old,
 Of the splendid thousand years
10 Of Britain's might and Britain's right
 And the brunt of British spears ;—
 Not yours alone, for the great world round,
 Ready to dare and do,
 Scot and Celt and Norman and Dane,
15 With the Northman's sinew and heart and brain,
 And the Northman's courage for blessing or bane,
 Are England's heroes too.
- North and south and east and west,
 Wherever their triumphs be,
20 Their glory goes home to the ocean-girt Isle,
 Where the heather blooms and the roses smile,
 With the green Isle under her lee.
 And if ever the smoke of an alien gun
 Should threaten her iron repose,
25 Shoulder to shoulder against the world,
 Face to face with her foes,
 Scot and Celt and Saxon are one
 Where the glory of England goes.

30 And we of the newer, vaster West,
 Where the great war-banners are furled,
 And commerce hurries her teeming hosts,
 And the cannon are silent along our coasts ;
 Saxon and Gaul, Canadians claim
35 A part in the glory and pride and aim
 Of the Empire that girdles the world.

(a) Give a suitable title for the above passage.

(b) What does the poet mean by “century-sculptured piles, where sleep our century-honored dead,” (lines 2-3); “the smoke of an alien gun” (line 23); “her iron repose” (line 24); “commerce hurries her teeming hosts” (line 31) ?

(c) Explain lines 21 and 22.

(d) Why does the poet use the expression “Saxon and Gaul” in line 33 ?

Education Department, Ontario.

Annual Examinations, 1906.

SENIOR TEACHERS, HONOR AND SCHOLARSHIP
MATRICULATION.

CHEMISTRY.

Examiners: $\left\{ \begin{array}{l} \text{F. B. KENRICK, PH.D.} \\ \text{J. C. McLENNAN, PH.D.} \\ \text{W. H. PIERSOL, B.A.} \end{array} \right.$

NOTE TO PRESIDING OFFICER.—Mendelejeff's tables are *not* to be given out with this paper.

1. The change of water into steam and the change of limestone (CaCO_3) into lime and carbon dioxide are examples of reversible reactions.

(a) Describe the effect of temperature and pressure on each of these reactions.

(b) Give two other examples of reversible reactions.

2. (a) Classify the following elements into groups according to the periodic system (Mendelejeff's table):—sodium, chlorine, potassium, antimony, phosphorus, barium, nitrogen, calcium, iodine, strontium, arsenic.

(b) Indicate the formulae of the oxides, hydrides, and chlorides of these elements, as far as they are known to exist.

(c) State which of these are acid-forming elements, which are base-forming elements, and which may act in both capacities.

3. Give two examples of each of the following:—acid anhydrides, bleaching agents, drying agents, reducing agents, oxidising agents, reactions hastened by a catalyser, i.e. by a substance which affects the rate of a reaction without itself undergoing any change.

4. A hydrated calcium sulphate, on being heated strongly, gave 79.07% of calcium sulphate (CaSO_4), and 20.93% of water. Calculate the equation expressing this reaction.

(Ca = 40, S = 32, O = 16, H = 1.)

[OVER]

5. Describe a method for preparing:—

- (a) phosphoric acid from phosphorus ;
- (b) sulphuric acid from iron pyrites (FeS_2) ;
- (c) cast iron from hematite (Fe_2O_3) ;
- (d) carbon monoxide from charcoal.

6. Write equations expressing the action of:—

- (a) ammonia on a solution of alum ;
- (b) carbon dioxide solution on calcium carbonate ;
- (c) hydrogen sulphide on a solution of copper sulphate ;
- (d) heat on potassium chlorate.

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SENIOR TEACHERS, HONOR AND SCHOLARSHIP
MATRICULATION.

ENGLISH AND ANCIENT HISTORY.

Examiners: { A. R. BAIN, M.A.
E. A. HARDY, B.A.
W. S. W. McLAY, M.A.

1. Mention the chief causes of England's growing wealth and importance during the reign of Elizabeth.

2. Write notes on:—

- (a) The Court of Star Chamber ;
- (b) The Petition of Right ;
- (c) The Test Act.

3. Of each of the following places give the location and mention any noted historical event connected with it:—Naseby, Torbay, Londonderry, Blenheim, Culloden, Plassy.

4. Give a short account of the character and life of Marlborough.

5. State the chief evils in Attica which Solon attempted to remedy, and the laws and political arrangements he made to accomplish his purpose.

6. Compare the treatment by Athens of her dependent allies during the time of her supremacy, with the treatment of weaker states by Sparta after the fall of Athens.

7. Sketch briefly the career of Sulla and of Pompey.

8. Outline the method adopted by republican Rome in the government of her provinces.

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SENIOR TEACHERS, HONOR AND SCHOLARSHIP
MATRICULATION.

PHYSICS.

Examiners : $\left\{ \begin{array}{l} \text{F. B. KENRICK, PH.D.} \\ \text{J. C. McLENNAN, PH.D.} \\ \text{W. H. PIERSOL, B.A.} \end{array} \right.$

1. (a) Show how to find graphically or by calculation :—

- (i) the resultant of two forces acting at a point ;
- (ii) the resultant of two parallel like forces acting upon a rigid body.

(b) State the conditions of equilibrium of a rigid body acted on by a number of forces in the same plane, and illustrate with reference to the case of a uniform bar 24 pounds in weight and 2 feet long, acted on by weights 48 pounds and 8 pounds at its ends and supported horizontally 6 inches from one end.

2. (a) Define *coefficient of friction*. How would you determine this coefficient for two substances experimentally ?

(b) A body of mass 50 grammes slides from rest down a rough inclined plane whose inclination to the horizon is 45° . If the length of the plane is one metre, and the coefficient of friction $\frac{3}{4}$, find the acceleration of the moving body. Calculate the velocity and the kinetic energy of the body when it reaches the end of the plane.

3. (a) Explain the action of a siphon, and the principle of Bramah's press.

(b) A piece of silver and a piece of gold are suspended from the two ends of an equal-armed balance-beam, which is in equilibrium when the silver is immersed in alcohol (Sp. Gr. 0.85) and the gold in nitric acid (Sp. Gr. 1.5). The specific gravities of the silver and gold being 10.5 and 19.3, respectively, what are their relative masses ?

(c) If the pressure at the bottom of a well is 4 times that at the depth of 2 feet, what is the depth of the well if the pressure of the atmosphere is equivalent to 30 feet of water ?

[OVER]

4. Find the centre of gravity of a plate formed by a square having a part cut off by means of two cuts reaching from two adjacent corners to the centre.

5. (a) What is meant by the specific resistance of a conductor?

(b) State the laws of resistance, and indicate the effect of an increase of temperature on the resistance of metallic wires.

(c) How is the resistance of the carbon filament of an electric lamp affected by increase of temperature?

(d) Describe two methods of finding the resistance of a wire.

6. (a) State and explain the Laws of Electrolysis. How may they be verified?

(b) Describe the construction of a storage cell.

7. (a) Explain the use of a relay in telegraphing.

(b) Describe the construction and explain the action of a telephone.

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SENIOR TEACHERS, HONOR AND SCHOLARSHIP
MATRICULATION.

TRIGONOMETRY.

Examiners: $\begin{cases} \text{W. H. BALLARD, M.A.} \\ \text{J. MATHESON, M.A.} \\ \text{W. PRENDERGAST, B.A.} \end{cases}$

1. Explain the radian and the degree as units of angle, and show that $1^\circ = 0.0174 \dots$ radians.

2. Explain from a right-angled triangle the six trigonometric functions of an angle, showing that each is always the same for the same angle. Show how the sine, cosine, and tangent vary in sign and magnitude as the angle increases from 0 to 360° .

3. (a) Prove that $\sin(A+B) = \sin A \cos B + \cos A \sin B$, and write a similar relation for $\cos(A+B)$.

(b) Find $\cos A - \cos B$ as a product.

(c) Show that $\cos 13^\circ - \sin 43^\circ = \cos 73^\circ$.

(d) Find $\tan \frac{A}{2}$ in terms of $\sin A$ and $\cos A$.

4. Prove, for any triangle, the relations:—

(a) $\frac{a}{\sin A} = \frac{b}{\sin B} = \frac{c}{\sin C} = d$, where d is the diameter of the circumscribed circle.

(b) $a^2 = b^2 + c^2 - 2bc \cos A$.

(c) $\sin \frac{A}{2} = \sqrt{\frac{(s-b)(s-c)}{bc}}$.

5. ABC is a triangle. $A = 24^\circ 13'$, $B = 38^\circ 30'$, $c = 100$. Find b .
Given $\sin 38^\circ 30' = 0.62251$, $\sin 62^\circ 43' = 0.88875$.

[OVER]

6. A and B are two points on opposite sides of a marsh. C is a point opposite one end of the marsh, and it is found by actual measurement that $AC=1000$ yards and $BC=1200$ yards. The angle BCA is found to be $126^{\circ}45'$. Find in yards the width of the marsh at AB . Given $\cos 53^{\circ}15' = 0.59832$.

7. A triangle has sides 13, 14, 15. Find the length of the radius of (a) the inscribed circle, (b) the circumscribed circle, (c) one escribed circle.

8. AB is a base line 1000 feet long, measured along the straight bank of a river, and C is an object on the opposite bank. The angles ABC and BAC are found to be 63° and $55^{\circ}14'$ respectively. Find the distance from A to C , and the breadth of the river at C .

$$L \sin 63^{\circ} = 9.94988,$$

$$L \sin 55^{\circ}14' = 9.91460,$$

$$L \sin 61^{\circ}46' = 9.94499,$$

$$\log 1.0113 = 0.00489,$$

$$\log 8.308 = 0.91949.$$

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SENIOR TEACHERS, HONOR AND SCHOLARSHIP MATRICULATION.

ALGEBRA.

Examiners: $\begin{cases} \text{W. H. BALLARD, M.A.} \\ \text{J. MATHESON, M.A.} \\ \text{W. PRENDERGAST, B.A.} \end{cases}$

1. (a) Find the condition that $ax^2 + bx + c$ and $px^2 + qx + r$ may have a common factor.

(b) Find the factors of $a^4(b-c) + b^4(c-a) + c^4(a-b)$.

2. Solve the equations:—

(a) $2x^2 + 6x - \sqrt{x^2 + 3x - 3} = 51;$

(b) $\begin{cases} 2x^2 - 3xy + 5y^2 = 20 \\ 3x^2 + 2xy - 4y^2 = 23; \end{cases}$

(c) $3x^4 + 7x^3 + 10x^2 + 7x + 3 = 0.$

3. (a) Show that if any two terms of an A.P. or of a G.P. be given, the series is completely determined.

(b) Find the sum to n terms of the series whose n^{th} term is $n(n+1)$.

(c) Find the general term of the series

$$1.5.1 + 3.7.4 + 5.9.9 + 7.11.16 + \dots$$

4. (a) Show how to find the value of a recurring decimal.

(b) Sum to n terms $r + 2r^2 + 3r^3 + 4r^4 + \dots$

5. (a) If x varies as y when z is constant, and x varies as z when y is constant, then y varies inversely as z when x is constant.

(b) The values of equal weights of gold and silver are in the ratio 30:1; the weights of equal volumes of gold and silver are as 64:35. Compare the value of a silver coin one inch in diameter with that of a gold coin of the same thickness whose diameter is three-fourths of an inch.

[OVER]

6. (a) Find the number of permutations of n things taken r at a time, (i) when each occurs only once in any group, (ii) when each may occur any number of times.

(b) How many numbers of four digits each may be formed from ten digits?

(c) How many numbers of four digits each have we in our system of notation?

(d) Why are the results of (b) and (c) not the same?

7. (a) Find the general term in the expansion of $(1+x)^n$.

(b) Find the coefficient of x^{2r} in the expansion of

$$\left(x - \frac{1}{x}\right)^{2n}$$

(c) Find the coefficient of x^5 in the expansion of

$$\frac{(1-2x)^{10}}{1-x}$$

8. (a) Show that any number and the sum of its digits when divided by 9 leave the same remainder.

(b) Find, by multiplication in the scale of 12, the volume of a rectangular solid whose dimensions are 3 feet 6 inches, 4 feet 3 inches, and 6 feet 8 inches; expressing the result as a whole number and radix fraction in the same scale.

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SENIOR TEACHERS, HONOR AND SCHOLARSHIP
MATRICULATION.

ENGLISH COMPOSITION.

Examiners: { A. R. BAIN, M.A.
E. A. HARDY, B.A.
W. S. W. McLAY, M.A.

NOTE.—*The candidate will write on ONE, and only one, of the following themes.*

1. “Now the day is over, night is drawing nigh.” (A descriptive account of the closing of the day, treated from the standpoint of city, town or country.)

2. Some thoughts on the future of Canada.

3. “We must be free or die, who speak the tongue
That Shakespeare spake ; the faith and morals hold
Which Milton held.”

4. “How far that little candle throws his beams !
So shines a good deed in a naughty world.”

5. Has the Fall Fair a mission to perform and is it performing it ?

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SENIOR TEACHERS, HONOR AND SCHOLARSHIP
MATRICULATION.

GEOMETRY.

Examiners: $\begin{cases} \text{W. H. BALLARD, M.A.} \\ \text{J. MATHESON, B.A.} \\ \text{W. PRENDERGAST, B.A.} \end{cases}$

1. If two sides of one triangle be respectively equal to two sides of another triangle, and if the angles opposite to one pair of equal sides be equal, the angles opposite the other pair of equal sides shall either be equal or supplementary. Prove.

2. If from a point without a circle two straight lines be drawn, one of which cuts the circle, and the other touches it; prove that the rectangle contained by the whole line that cuts the circle and the part of it without the circle, shall be equal to the square on the line that touches it.

3. Inscribe a circle in a given regular pentagon.

4. If the vertical angle of a triangle be bisected by a straight line that also cuts the base, prove that the internal segments of the base shall have to one another the same ratio as the other sides of the triangle have.

5. Divide a given straight line internally and externally in a given ratio.

6. If from the vertical angle of a triangle a perpendicular be drawn to the base, prove that the rectangle contained by the sides of the triangle is equal to the rectangle contained by the perpendicular and the diameter of the circle circumscribed about the triangle.

7. From any point P on the circumference of a circle, perpendiculars PA , PB are drawn to two fixed diameters. Show that AB is constant in length.

[OVER]

8. Prove that the straight lines that join the opposite extremities of two parallel chords, intersect in a point in that diameter which is perpendicular to the chords.

9. Prove that the area of a regular hexagon inscribed in a circle is equal to half the area of an equilateral triangle circumscribed about the circle.

10. A point D is taken in BC , a side of the triangle ABC , and the angles ADB , ADC are bisected by DE and DF , meeting AB , AC in E and F respectively. If EF be parallel to BC , show that D must be the bisection of BC .

11. Find a point in a side of a triangle, from which two straight lines drawn, one to the opposite angle, and the other parallel to the base, shall cut off toward the vertex and the base triangles equal in area.

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SENIOR TEACHERS, HONOR AND SCHOLARSHIP
MATRICULATION.

ENGLISH POETICAL LITERATURE.

Examiners : { A. R. BAIN, M.A.
E. A. HARDY, B.A.
W. S. W. McLAY, M.A.

1. Point out the various means whereby in *The Merchant of Venice* Shakespeare (a) evokes in the reader a measure of sympathy with Shylock, and (b) excites detestation of him.

2. (a) Give briefly the substance of the soliloquies of the three suitors in the casket scenes.

(b) Refer to any indications of Portia's feelings with respect to each of the three.

(c) State the important details of that portion of the scene following Bassanio's successful choice.

3. Mention the various purposes served by the Chorus in *Henry the Fifth*, illustrating your answer by definite references.

4. Quote *one* of the following:—

(a) Once more unto the breach, dear friends, once more,
(Fifteen additional consecutive lines.)

(b) I am a king that find thee, and I know
'Tis not the balm, the sceptre and the ball,
(Fifteen additional consecutive lines.)

(c) For so work the honey bees,
Creatures that by a rule in nature teach
The act of order to a peopled kingdom.
(Fifteen additional consecutive lines.)

(d) Six consecutive stanzas of *The Ancient Mariner*.

(e) Three consecutive stanzas of the *Ode to Duty*.

[OVER]

- 5.

in making the above stanza musical.

(b) Mark the places where the accents fall in the third line.

accents :—

- (i) By thy long gray beard and glittering eye.

(ii) Swiftly, swiftly, flew the ship.

(iii) For the sky and the sea, and the sea and the sky.

(iv) We stuck, nor breath nor motion.

that serve to win the reader's sympathy for him.

7. Give the meaning of the italicised words in the following:—

- (a) *Vailing* her high top lower than her ribs
To kiss her *burial*.

(b) With purpose to be *dress'd in an opinion*
Of wisdom, gravity, profound *conceit*.

(c) *For the commodity that strangers have
With us in Venice, if it be denied,
Will much impeach the justice of the state.*

(d) Or else our grave,
Like Turkish mute, *shall have a tongueless mouth,*
Not *worshipped* with a waxen epitaph.

(e) Now all the youth of England are on fire,
And *silken dalliance in the wardrobe lies*.

(f) That's mercy, but too much *security*:
Let him be punished, sovereign, lest example
Breed, *by his sufferance*, more of such a kind.

(g) Give all thou canst ; *high Heaven rejects the lore*
Of nicely-calculated less or more.

8. Indicate with precision the connection in which *five* of the following passages occur:—

- (a) O, what a goodly outside falsehood hath.

(b) If we are mark'd to die, we are enow
To do our country loss, and if to live,
The fewer men, the greater share of honor.

(c) And thus thy fall hath left a kind of blot,
To mark the full-fraught man and best indued
With some suspicion.

- (d) O love, be moderate ; allay thy ecstasy ;
In measure rain thy joy ; scant this excess !
I feel too much thy blessing : make it less.
- (e) For I am sure, when he shall see our army,
He'll drop his heart into the sink of fear,
And for achievement offer us his ransom.
- (f) A spring of love gushed from my heart,
And I blessed them unaware :
Sure my kind saint took pity on me,
And I blessed them unaware.
- (g) Farewell, farewell the heart that lives alone,
Housed in a dream, at distance from the Kind ;
Such happiness, wherever it be known,
Is to be pitied ; for 'tis surely blind.

Education Department, Ontario.

Annual Examinations, 1906.

SENIOR TEACHERS.

BOTANY.

Examiners: { F. B. KENRICK PH.D.
J. C. McLENNAN, PH.D.
W. H. PIERSOL, B.A.

1. (a) Describe the structure and mode of reproduction of a lichen.

(b) Explain how a lichen growing on a bare rock is nourished.

2. (a) What are the characters common to ferns, horsetails, and club-mosses that cause us to group them together?

(b) By what characters are they distinguished from one another?

3. (a) Describe the different ways in which leaves may be arranged along a stem.

(b) What is the result obtained in all these arrangements?

4. Compare the structure of four types of fruit in the order Rosaceæ, showing clearly what are the corresponding parts in each.

5. (a) What purposes are served by the roots of plants?

(b) Describe the main modifications of roots and point out the purpose for which each is best adapted.

Education Department, Ontario.

Annual Examinations, 1906.

SENIOR TEACHERS.

ZOOLOGY.

Examiners: { F. B. KENRICK, PH.D.
J. C. McLENNAN, PH.D.
W. H. PIERSOL, B.A.

1. (a) Compare the skeleton of the anterior limb of a bird with that of a cat (or dog).

(b) Compare the skeleton of the posterior limb of a bird with that of a cat (or dog).

(c) Show how in each case the peculiarities of the skeleton adapt it to the uses of the limb.

2. How does the crayfish perform the functions of (a) locomotion, (b) respiration, (c) feeding? Include in your answer a brief description of the organs involved in each case.

3. Describe the structure of a fresh water mussel.

4. (a) Describe briefly the organs of respiration in a fish and a frog.

(b) How is the blood brought to these organs from the heart in each animal?

(c) How is the blood distributed from them throughout the body in each animal?

(d) How is each of these plans adapted to the general habits of the animal in which it occurs?

Education Department, Ontario.

Annual Examinations, 1906.

HONOR AND SCHOLARSHIP MATRICULATION.

ZOOLOGY.

Examiners: { F. B. KENRICK, PH.D.
J. C. McLENNAN, PH.D.
W. H. PERSOL, B.A.

1. Place the specimen submitted with its ventral side uppermost and remove the ventral body wall:—

(a) Make an outline drawing of the body cavity and such of the contained viscera as can be seen without disturbing any of them.

(b) After this, move the viscera into such positions as will expose the organs before concealed. Make a second drawing showing these. (In this drawing organs represented in the first may, but need not, be repeated.)

2. (a) What is meant by the “respiration” of an animal?

(b) Describe how it is performed in a bird, a fish, an insect, and an earthworm.

3. (a) What different regions do you recognize in the vertebral column of a mammal?

(b) How is each region adapted to the needs of that portion of the body containing it?

4. (a) Describe the external features of the earthworm.

(b) How does an earthworm become aware of its enemies?

(c) How does it protect itself against them?

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Annual Examinations, 1906.

SCHOLARSHIP AND HONOR MATRICULATION.

BIOLOGY.—(BOTANY.)

Examiners : { F. B. KENRICK, PH.D.
J. C. McLENNAN, PH.D.
W. H. PIERSOL, B.A.

NOTE.—*Thirty minutes are to be allowed for Part A.*

PART A.

Identify the submitted plant by means of your text-book, referring it to its proper order, genus and species, and analyse it according to the accompanying schedule.

(Schedule will be found on Pages 2, 3 and 4.)

[OVER.]

NOTE.—Candidates are requested to indicate Class, Sub-Class, and Division thus **X**. Name of Family, Genus and Species must be written in full.

CLASS I.—GYMNOSPERMS.	
CLASS II.—ANGIOSPERMS.	
SUB-CLASS I.—DICOTYLEDONS.	1. POLYPETALOUS DIVISION, 2. GAMOPETALOUS DIVISION, 3. APETALOUS DIVISION,
SUB-CLASS II.—MONOCOTYLEDONS.	1. SPADICEOUS DIVISION, 2. PETALOIDEUS DIVISION, 3. GLUMACEOUS DIVISION,
Family	
Genus	
Species.	

[OVER.]

SCHEDULE—(Continued).

ROOT	Origin	LEAF	Division.....
	Form		Position.....
STEM	Color		Arrangement.....
	Duration		Stipulation.....
	Position.....		Insertion.....
	Class		Outline
	Attitude		No. of leaflets, if any.....
	Texture.....		*Texture.....
	Position		*Color
	Shape		*Size.....
	Juice		*Venation.....
	Branching.....		*Margin.....
	Height.....		*Apex
	Duration		*Base.....
INFLORESCENCE	Surface		*Surface
			*Applicable to leaflets if leaf is compound.
Mode.....		Variety.....	

SCHEDULE—(Continued).

THE FLOWER.				
ORGAN.	No.	COHESION.	ADHESION.	NOTES OF FORM, ÆSTIVATION, COLOR, &c.
Perianth. <i>Leaves.</i>				
Calyx. <i>Sepals.</i>				
Corolla. <i>Petals.</i>				
Stamens. <i>Filaments.</i> <i>Anthers.</i>				
Pistil. <i>Stigmas.</i> <i>Styles.</i> <i>Carpels.</i> <i>Ovary-cells.</i>				

Education Department, Ontario.

Annual Examination, 1906.

HONOR AND SCHOLARSHIP MATRICULATION.

BOTANY.

Examiners: { F. B. KENRICK, PH.D.
J. C. McLENNAN, PH.D.
W. H. PIERSOL, B.A.

PART B.

1. Describe fully the submitted plant.
2. (a) Draw the submitted section as a whole, naming the various parts.
(b) Draw separately typical areas from the various parts, naming the tissues found in each.
(c) State your reasons for regarding the section as from a monocotyledonous or from a dicotyledonous plant.
2. (a) Describe the structure and life history of a moss.
(b) In what respects does a liverwort differ from a moss?
4. Describe how you would examine a flower to construct its floral diagram. Illustrate your answer using the lily as example.
5. (a) Of what service to a plant are its leaves?
(b) Show how the structure of a leaf, as revealed by the microscope, is related to its activities.

Education Department, Ontario.

Annual Examinations, 1906.

SENIOR TEACHERS, HONOR AND SCHOLARSHIP
MATRICULATION.

LATIN AUTHORS, GRAMMAR, AND SIGHT TRANSLATION.

Examiners: { G. W. JOHNSTON, PH.D.
J. MACNAUGHTON, M.A.
J. C. ROBERTSON, M.A.

A.

1. Translate into English :—

(a) Venit summa dies et ineluctabile tempus
Dardaniae. fuimus Troes, fuit Ilium, et ingens
gloria Teucrorum ; ferus omnia Juppiter Argos
transtulit ; incensa Danaï dominantur in urbe.
arduus armatos mediis in moenibus adstans
fundit equus, victorque Sinon incendia miscet
insultans. portis alii bipatentibus adsunt,
milia quot magnis umquam venere Mycenis ;
obsedere alii telis angusta viarum
oppositi ; stat ferri acies mucrone corusco
stricta, parata neci ; vix primi proelia temptant
portarum vigiles, et caeco Marte resistunt.

(b) Hunc et incomptis Curium capillis
utilem bello tulit et Camillum
saeva paupertas et avitus apto
cum lare fundus.

crescit occulto velut arbor aevo
fama Marcelli ; micat inter omnes
Julium sidus velut inter ignes
luna minores.

gentis humanae pater atque custos,
orte Saturno, tibi cura magni
Caesaris fatis data : tu secundo
Caesare regnes.

[OVER]

ille seu Parthos Latio imminentes
egerit justo domitos triumpho
sive subiectos Orientis orae
Seras et Indos,

te minor latum reget aequus orbem ;
tu gravi curru quaties Olympum,
tu parum castis inimica mittes
fulmina lucis.

2. Give the principal parts of (a) *stricta*, *fundit* ; (b) *micat*, *quaties*, *egerit*, explaining the tense of the last.

3. Explain the phrases (a) *caeco Marte* ; (b) *incomptis capillis*, *apto cum lare*. Decline in the plural *Seras*, in (b).

4. Write notes on the constructions (b) *utilem bello* ; *crescit aevo* ; *orte Saturno* ; *secundo Caesare* ; *mittes lucis*.

5. Who was the Marcellus whom Horace had chiefly in view ?

6. What relation between Caesar and Jupiter is implied in (b) ? Explain by reference to other odes which you have read, how a sensible man like Horace could have come to speak of Augustus as a god.

B.

7. Translate into English :—

(a) Atque nostris militibus cunctantibus, maxime propter altitudinem maris, qui decimae legionis aquilam ferebat, contestatus deos, ut ea res legioni feliciter eveniret, “Desilite,” inquit, “milites, nisi vultis aquilam hostibus prodere: ego certe meum rei publicae atque imperatori officium praestitero.” Hoc cum voce magna dixisset, se ex navi projecit atque in hostes aquilam ferre coepit. Tum nostri cohortati inter se, ne tantum dedecus admitteretur, universi ex navi desiluerunt.

(b) Difficile est dictu, Quirites, quanto in odio simus apud exterarum nationes propter eorum, quos ad eas per hos annos cum imperio misimus, libidines et injurias. Quod enim fanum putatis in illis terris nostris magistratibus religiosum, quam civitatem sanctam, quam domum satis clausam ac munitam fuisse? Urbes jam locupletes ac copiosae requiruntur, quibus causa belli propter diripiendi cupiditatem inferatur. Libenter haec coram cum Q. Catulo et Q. Hortensio, summis et clarissimis viris, disputarem; noverunt enim sociorum vulnera, vident eorum calamitates, querimonias audiunt. Pro sociis vos contra hostes exercitum

mittere putatis, an hostium simulatione contra socios atque amicos? quae civitas est in Asia, quae non modo imperatoris aut legati, sed unius tribuni militum animos ac spiritus capere possit?

(c) Non fuit recusandum in tanto civili bello, tanto animorum ardore et armorum, quin quassata res publica, quicumque belli eventus fuisset, multa perderet et ornamenta dignitatis et praesidia stabilitatis suae: multaque uterque dux faceret armatus, quae idem togatus fieri prohibuisset. Quae quidem tibi nunc omnia belli vulnera sananda sunt, quibus praeter te nemo mederi potest.

8. Turn the passage in (a) from *desilite* down to *praestitero* into *oratio obliqua*.

9. Account for all the subjunctives in (b).

10. Account for the mood and tense of *fuisset* and *prohibuisset* in (c).

11. Describe more fully and account for the oppression of the provincials referred to in (b).

C.

12. Translate into English:—

PRAISE OF LUCULLUS.

Consulatum Lucullus ita gessit ut diligentiam admirarentur omnes, ingenium cognoscerent. Post ad Mithridaticum bellum missus a senatu non modo opinionem vicit omnium quae de virtute eius erat, sed etiam gloriam superiorum. Idque eo fuit mirabilius, quod ab eo laus imperatoria non admodum exspectabatur, qui adolescentiam in forensi opera, quaesturae diuturnum tempus, Murena bellum in Ponto gerente, in Asia pace consumpserat. Sed incredibilis quaedam ingenii magnitudo non desideravit usus disciplinam. Itaque cum totum iter et navigationem consumpsisset partim in percontando a peritis, partim in rebus gestis legendis, in Asiam factus imperator venit, cum esset Roma profectus rei militaris rudis. Tantus ergo imperator in omni genere belli fuit, proeliis, oppugnationibus, navalibus pugnis, totiusque belli instrumento et apparatu, ut ille rex post Alexandrum maximus hunc a se maiorem ducem cognitum, quam quemquam eorum, quos legisset, fateretur. In eodem tanta prudentia fuit in constituendis temperandisque civitatibus, tanta aequitas, ut hodie stet Asia Luculli institutis servandis et quasi vestigiis persequendis.

percontari—to make enquiry.

Education Department, Ontario.

Annual Examinations, 1906.

SENIOR TEACHERS, HONOR AND SCHOLARSHIP MATRICULATION.

LATIN COMPOSITION.

Examiners: { G. W. JOHNSTON, PH.D.
J. MACNAUGHTON, M.A.
J. C. ROBERTSON, M.A.

1. Translate into Latin:—

- (a) It will in no way be possible for you, Cn. Pompeius, to do all this without impairing the revenues.
- (b) In the last place, I shall have to speak briefly of the choice of public officials.
- (c) It is not without reason that you speak of Caesar's good fortune in undertakings very dissimilar.
- (d) So far from giving him the praise which was due, those people were not even willing to say he was a fit person to be sent to Asia.
- (e) O that you had believed this report of mine and that you esteemed our confederates also worthy of obtaining their request!
- (f) Therefore for your own sake as well as for the sake of the Roman knights you ought to defend this province even from the fear of disaster.
- (g) We should have conquered much more quickly if Pompeius had been appointed to the command of this army. He is not the man to withdraw from any war before he has brought it to an end.

2. Translate into Latin:—

The war between Rome and Mithridates had been dragging on for many years. Despite our frequent victories at the outset, the king always succeeded in making his escape, at one time to the most distant parts of his own domains, at another to his son-in-law, Tigranes, in Armenia. At times he did not hesitate even to assume the offensive; and, indeed, we have not yet punished him for the monstrous crime he committed when he

[OVER]

designated eighty thousand of our citizens to be foully slaughtered in a single day.

L. Lucullus, after great achievements, was obliged to retire from the conduct of the war and to hand over his command to Glabrio, his successor. Both the kings seemed to think that this very circumstance offered them an opportunity to seize upon our province and to make Asia as a whole tributary to them. They therefore devoted themselves energetically to preparation for a new war, constructing several fleets well-equipped in every respect, and mustering from every quarter the largest armies possible.

Education Department, Ontario.

Annual Examinations, 1906.

SENIOR TEACHERS, HONOR AND SCHOLARSHIP
MATRICULATION.

FRENCH AUTHORS, GRAMMAR, AND SIGHT TRANSLATION.

Examiners: { J. W. G. ANDRAS, PH.D.
P. EDGAR, PH.D.
J. SQUAIR, B.A.

A.

1. Translate into English:—

Toute cette cavalerie, sabres levés, étendards et trompettes au vent, formée en colonne par division, descendit d'un même mouvement et comme un seul homme, avec la précision d'un bélier de bronze qui ouvre une brèche, la colline de la Belle Alliance, s'enfonça dans le fond redoutable où tant d'hommes déjà étaient tombés, y disparut dans la fumée, puis, sortant de cette ombre, reparut de l'autre côté du vallon, toujours compacte et serrée, montant au grand trot, à travers un nuage de mitraille crevant sur elle, l'épouvantable pente de boue du plateau de Mont-Saint-Jean. Ils montaient, graves, menaçants, imperturbables; dans les intervalles de la mousqueterie et de l'artillerie, on entendait ce piétinement colossal. Étant deux divisions ils étaient deux colonnes. On croyait voir de loin s'allonger vers la crête du plateau deux immenses couleuvres d'acier. Cela traversa la bataille comme un prodige.

2. Write the infinitive, present and past participles, the present tense in full, and the future of the verbs to which belong *descendit*, *ouvre*, *disparut*.

3. *où tant d'hommes étaient tombés*. Explain clearly when *être* should be used as the auxiliary of *tomber*, and when *avoir*. Also distinguish between *tomber à terre* and *tomber par terre*.

[OVER]

B.

4. Translate into English:—

DANIEL.—Je me suis laissé glisser....exprès! dans une petite crevasse....pas méchante.

ARMAND.—Exprès?

DANIEL.—Vous ne comprenez pas? Donner à un carrossier l'occasion de sauver son semblable sans danger pour lui, c'est un coup de maître! Aussi, depuis ce jour, je suis sa joie, son triomphe, son fait d'armes! Dès que je parais, sa figure s'épanouit, il lui pousse des plumes de paon dans sa redingote. Je le tiens comme la vanité tient l'homme....quand il se refroidit, je le ranime, je le souffle....je l'imprime dans le journal....à trois francs la ligne.

5. Translate into French:—She let herself slip. They let the feathers fall. That is the song I made her sing.

C.

6. Translate into English:—

Le rapport nécessaire entre la direction des voiles et celle du gouvernail étant brusquement rompu, le vaisseau s'inclina avec tant de violence qu'on eût dit qu'il allait s'abîmer. Ses longues vergues plongèrent dans la mer. Plusieurs hommes furent renversés; quelques-uns tombèrent par-dessus le bord. Bientôt le vaisseau se releva fièrement contre la lame, comme pour lutter encore une fois avec la destruction.

7. Describe the situation to which the above passage relates.

D.

8. Translate into English:—

Le siècle où nous vivons est désormais inscrit en caractères ineffaçables sur les tablettes de l'histoire. La terre est transformée. On a voyagé tout autour, on l'a mesurée et ce n'est plus Charlemagne qui la porte dans sa main: le compas du géomètre s'est substitué au sceptre impérial.

Les océans sont de toutes parts sillonnés par les navires aux voiles gonflées, par la nef rapide dont l'hélice perce les flots; les continents sont parcourus par le dragon flamboyant de la locomotive, et, sous le couvert du télégraphe, nous causons à voix basse d'un bout du monde à l'autre; la vapeur donne une vie inconnue à d'innombrables moteurs et l'électricité nous permet de compter au même moment les pulsations de l'humanité entière. Quelque vastes que soient encore les progrès à acquérir, nos descendants seront éternellement forcés de reconnaître que la science doit à notre époque l'étrier de son Pégase, et que, s'ils grandissent encore, s'ils voient le soleil s'élever à leur zénith, leur jour ne brillerait pas sans notre aurore.

Education Department, Ontario.

Annual Examinations, 1906.

SENIOR TEACHERS, HONOR AND SCHOLARSHIP
MATRICULATION.

FRENCH COMPOSITION.

Examiners: { J. W. G. ANDRAS, PH.D.
P. EDGAR, PH.D.
J. SQUAIR, B.A.

A.

Translate into French :—

1. (a) France and Germany are two great countries.
(b) Montreal is in Canada and New Orleans is in the United States.
(c) In North America there are several large countries.
(d) The wines of France and Spain are celebrated.
2. (a) Those young ladies have written each other many letters.
(b) Stop ; do not go away ; I have been waiting an hour for you.
(c) The children were talking very loud, but on seeing me they became silent.
(d) I am going ; hasten if you wish to go with me.
3. (a) Do you think your brother will be able to come? No sir, I do not think so.
(b) What is the matter with Marie? She is ashamed that you saw her.
(c) I hope you will be able to help me when I see you again.
(d) I fear that you will go away before I can get there.
4. (a) Will you lend me the money I need? I shall think about it.
(b) That man is a good judge of horses, but I am not.
(c) He has a grudge against me, I think, for he would not speak to me.
(d) There are some who think that he must be in this country.

[OVER]

Translate into French:—

5. (a) When the people come, make them sit down in the drawing-room.
(b) The house which he had built for himself last year does not suit him.
(c) I make my pupils read the most interesting books I can find.
(d) Will you not let your children come to our house next Monday?
6. (a) He would not tell me what he had done.
(b) I asked him what he complained of but he would not speak.
(c) You were his friend, which made his conduct still more detestable.
(d) What I trust to is that he will never know what I have done.

B.

Translate into French :—

The cat was a wonderful cat. He did not catch rats and mice as cats usually do, but he had boots made for himself and set out for the woods where he caught rabbits and partridges which he carried to the palace. He made a bow to the king and presented him with the game, saying that it was a gift from his master, the marquis de Carabas. On another occasion he succeeded in getting his master invited to enter the king's carriage and sit beside the princess. Then he ran off, told the harvesters to say to the king that the fine fields belonged to the marquis, his master, and finally he arrived at the giant's castle. By his cleverness he killed the giant and ate him up. When the king arrived at the castle he invited him to enter. The company descended from the carriage and entered the castle. In a great hall a fine repast had been prepared by the giant for his friends. The king and his company sat down, and after they had eaten, the king promised his daughter's hand to the beautiful young marquis. Shortly afterwards they were married and the cat ran after rabbits no more.

Education Department, Ontario.

Annual Examinations, 1906.

SENIOR TEACHERS, HONOR AND SCHOLARSHIP
MATRICULATION.

GERMAN AUTHORS, GRAMMAR, AND SIGHT TRANSLATION.

Examiners: { J. W. G. ANDRAS, PH.D.
P. EDGAR, PH.D.
J. SQUAIR, B.A.

A.

1. Translate into English :—

Wonach verlangte ihn denn noch, als nach Ruhe und Frieden! Hier hatte er gehofft, ihrer teilhaftig zu werden. Ja, eine saubere Ruhe, ein sauberer Frieden! Um die zu finden, braucht man sich nicht zurückzuziehen in die Einöde, sich nicht zu vergraben in geisttötende Abgeschiedenheit. Wenn es aber schon nicht anders ist, wenn du recht hast, o Seneca! wenn leben Krieg führen heißt und durchaus gestritten sein muß, dann sei es auf würdigem Kampfplatze; dann sei es in der Welt, wohin ein Mann gehört, den das Schicksal mit ungewöhnlicher Ausdauer und mit ungewöhnlichen Geistesgaben gesegnet oder — heimgesucht hat.

2. Who was Seneca?

3. What is the subject of muß (line 7)?

4. Decline in the singular ein sauberer Frieden.

5. Give the third singular imperfect indicative of heißt, gestritten, muß; also the third singular imperfect subjunctive of the same verbs.

[OVER]

B.

6. Translate into English :—

Gertrude. Wankelmuth und kein Ende! Da wären wir also wieder auf dem alten Flecke. Steht Ihr nicht da, als ob Ihr zum Nichtplatz solltet! Ihr Hasensfüße, faßt Euch doch ein Herz, an Kopf und Kragen geht es ja nicht.

Jacob. Wilhelm hatte immer mehr Muth als ich.

Wilhelm. Jacob hätte mir längst mit gutem Beispiele vorangehen sollen, aber alle Mädchen, die Sie ihm vorschlugen, wies er zurück. Er kann jetzt Eine davon wählen.

Jacob. Na, die sind gewiß längst alle tot oder verheiratet. Ich bin überzeugt, Sie wissen im Augenblicke selbst keine Partie.

7. Write the third person singular imperfect indicative of *vorangehen*, *vorschlugen*, *wissen*, and the past participle of *wies zurück*.

C.

8. Translate into English :—

Emma. Nein, nein, so fängt die Unterjochung an, mit der Forderung des blinden Gehorsams. Aber ich lasse mich nicht zur Sklavin machen, nie, niemals. Ich werde meine Rechte verteidigen bis auf den letzten Atemzug, nie werde ich mich Drohungen, nie roher Gewalt unterwerfen.

Alfred (ganz leicht hingeworfen). „Und er soll dein Herr sein“, sagt die Schrift.

Emma (das Wort auffassend). Siehst Du, daß ich Recht hatte? Du willst der Herr, ich soll die Sklavin sein, Du willst befehlen, ich soll gehorchen. O, ich erkenne Deine Herrschaft an, wie es sich ziemt, ich werde Dir gehorchen in allen vernünftigen Dingen, nie aber, wenn Deine Befehle unvernünftig sind!

9. Indicate the context in which this passage occurs.

D.

10. Translate into English :—

Der Alte war unzufrieden mit sich selbst und wollte es doch nicht eingestehen. Er hätte einen Finger darum gegeben, wenn er den mit dem Forstgehilfen geschlossenen Pakt wieder rückgängig hätte machen können, denn es war ihm jetzt klar, daß sein Kind einen unbesiegbaren Widerwillen gegen Witsch hatte, und wenn er sich auch damit zu trösten suchte, daß Abneigung oft im Ehestand in Zuneigung verkehrt werde, so wünschte er doch im Grund seines Herzens, Witsch möge die Kleeblattprobe nicht bestehen.

11. State the gender and give the nominative plural of
Faß, Kind, Abneigung, Grund, Herzens.

E.

12. Translate into English :—

Ich singe, wie der Vogel singt,
Der in den Zweigen wohnet;
Das Lied, das aus der Kehle dringt,
Ist Lohn, der reichlich lohnet.
5 Doch darf ich bitten, bitt' ich eins:
Laß mir den besten Becher Weins
In purem Golde reichen.

13. Who is the author of this piece, and when did he live?

14. Give a German synonym for purem (line 7).

F.

15. Translate into English :—

Es war ein Graf, der besass eine wunderschöne Frau, eine prächtige Burg samt Stadt und so viele ansehnliche Güter, dass er für einen der reichsten und glücklichsten Herren im Lande galt. Diesen Ruf schien er denn auch dankbar anzuerkennen, indem er nicht nur eine glänzende Gastfreundschaft hielt, wobei sein schönes Weib gleich einer Sonne die Gemüter der Gäste erwärmte, sondern auch die christliche Wohlthätigkeit im weitesten Umfang übte.

Er stiftete und begabte Klöster und Spitäler, schmückte Kirchen und Kapellen, und an allen hohen Festtagen kleidete, speiste, und tränkte er eine grosse Zahl von Armen, und einige Dutzend mussten täglich auf seinem Burghofe schmausend und ihn lobpreisend zu sehen sein, sonst hätte ihm seine Wohnung, so schön sie war, verödet geschienen.

Education Department, Ontario.

Annual Examinations, 1906.

SENIOR TEACHERS, HONOR AND SCHOLARSHIP
MATRICULATION.

GERMAN COMPOSITION.

Examiners : { J. W. G. ANDRAS, PH.D.
P. EDGAR, PH.D.
J. SQUAIR, B.A.

A.

1. Translate into German :—

- (a) The landlady asked the miller how she could get rid of the goblin.
- (b) He told her that she must have a blue waist-coat made for it, and a pair of shoes also.
- (c) She hoped that her strange guest would vanish, but she did not succeed so easily.
- (d) When she went into the cellar she found that her wine had been stolen.

2. Translate into German :—

- (a) As Alfred came out of his room he heard an amusing conversation.
- (b) He remained standing until the servants had set the table.
- (c) One of the servants wished the other to say : Thank heaven the table is set.
- (d) But the servant named Lisbeth was too obstinate to say that, and so they quarreled.

3. Translate into German :—

- (a) Jacob and William were two brothers whose aunt wished one of them to marry.
- (b) They do not know what to do, and at last they resolve to draw lots.
- (c) Jacob draws the piece of paper which is marked with a cross.
- (d) But he is too shy to speak to the girl, and William gains the bride.

[OVER]

4. Translate into German:—

- (a) He said that he would have done it, if he could have done it.
- (b) I intend to visit you during my holidays, if I have time.
- (c) He has been elected mayor for the second time, so he will not go to Europe.
- (d) I cannot do all that I hoped to do, but I will do my best.

B.

6. Translate into German:—

Many years ago there lived a rich man, who had many fields and a beautiful old castle. This rich man had an only son, whose name was Hugo. When his mother died Hugo was quite a little child and his nurse (Märterin) took care of him. One fine day in autumn the father had gone out hunting and the nurse was alone at home with the little boy. When the child had gone to sleep, the nurse went into the garden. Meanwhile a snake (Schlange) crept in through the open window. The dog which was in the room seized the snake, but it bit the faithful dog in the neck. The nurse heard the dog howl and ran quickly into the house. She found the little boy in his cradle, but the dog and the snake lay dead beside it.

Education Department, Ontario.

Annual Examinations, 1906.

SENIOR TEACHERS, HONOR AND SCHOLARSHIP
MATRICULATION.

GREEK AUTHORS, GRAMMAR, AND SIGHT TRANSLATION.

Examiners: { G. W. JOHNSTON, PH.D.
J. MACNAUGHTON, M.A.
J. C. ROBERTSON, M.A.

1. Translate into English :—

εἰς δὲ δὴ εἶπε, προσποιούμενος σπεύδειν ὥς τάχιστα πορεύεσθαι εἰς τὴν Ἑλλάδα, στρατηγοὺς μὲν ἐλέσθαι ἄλλους ὥς τάχιστα, εἰ μὴ βούλεται Κλέαρχος ἀπάγειν· τὰ δ' ἐπιτήδεια ἀγοράζεσθαι (ἢ δ' ἀγορὰ ἦν ἐν τῷ βαρβαρικῷ στρατεύματι), καὶ συσκευάζεσθαι· ἐλθόντας δὲ Κῦρον αἰτεῖν πλοῖα, ὥς ἀποπλέοιεν· ἐὰν δὲ μὴ διδῶ ταῦτα, ἡγεμόνα αἰτεῖν Κῦρον, ὅστις διὰ φιλίας τῆς χώρας ἀπάξει· ἐὰν δὲ μὴδὲ ἡγεμόνα διδῶ, συντάττεσθαι τὴν ταχίστην, πέμψαι δὲ καὶ προκαταληψομένους τὰ ἅκρα, ὅπως μὴ φθάσωσι μήτε Κῦρος μήτε οἱ Κίλικες καταλαβόντες, ὧν πολλοὺς καὶ πολλὰ χρήματα ἔχομεν ἀνηρπακότες.

2. (a) Parse fully ἐλέσθαι, ἐλθόντας, προκαταληψομένους, ἀνηρπακότες.

(b) Remark on the form of ἔχομεν ἀνηρπακότες, and on the mood of ἔχομεν.

(c) Give the mood synopsis of φθάσωσι, διδῶ.

3. Translate into English :—

(a) δᾶερ ἐμεῖο, κυνὸς κακομηχάνου ὀκρυοέσεως,
ὥς μ' ὄφελ' ἡματι τῷ, ὅτε με πρῶτον τέκε μήτηρ,
οἷχεσθαι προφέρουσα κακὴ ἀνέμοιο θύελλα
εἰς ὄρος ἢ εἰς κῦμα πολυφλοίσβοιο θαλάσσης,
5 ἔνθα με κῦμ' ἀπόερσε πάρος τάδε ἔργα γενέσθαι.
αὐτὰρ ἐπεὶ τάδε γ' ὦδε θεοὶ κακὰ τεκμήραντο,
ἀνδρὸς ἔπειτ' ὠφελλον ἀμείνονος εἶναι ἄκοιτις,
ὃς ἤδη νέμεσίν τε καὶ αἵσχεα πόλλ' ἀνθρώπων.
τούτῳ δ' οὔτ' ἄρ' νῦν φρένες ἔμπεδοι οὔτ' ἄρ' ὀπίσσω
10 ἔσσονται· τῷ καὶ μιν ἐπαυρήσεσθαι οἶω.

[OVER]

- (b) τὸν δ' αὖτε προσέειπε περίφρων Πηνελόπεια·
 “Εὐρύμαχ', οὐ πῶς ἔστιν ἐνκλείας κατὰ δῆμον
 ἔμμεναι οἱ δὴ οἶκον ἀτιμάζοντες ἔδουσιν
 ἀνδρὸς ἀριστῆος· τί δ' ἐλέγχεα ταῦτα τίθεσθε;
 15 οὗτος δὲ ξεῖνος μάλα μὲν μέγας ἦδ' εὐπηγῆς,
 πατρὸς δ' ἐξ ἀγαθοῦ γένος εὐχεται ἔμμεναι υἱός.
 ἀλλ' ἄγε οἱ δότε τόξον εὖξοον, ὄφρα ἴδωμεν.
 ὧδε γὰρ ἐξερέω, τὸ δὲ καὶ τετελεσμένον ἔσται·
 εἴ κέ μιν ἐντανύσῃ, δῶν δέ οἱ εὐχος Ἀπόλλων,
 20 ἔσσω μιν χλαῖνάν τε χιτῶνά τε, εἵματα καλὰ,
 δώσω δ' ὄξυν ἄκοντα, κυνῶν ἀλκτῆρα καὶ ἀνδρῶν,
 καὶ ξίφος ἄμφηκες· δώσω δ' ὑπὸ ποσσὶ πέδιλα,
 πέμψω δ' ὅππῃ μιν κραδίη θυμός τε κελεύει.”

4. Explain what is meant by the digamma. Scan ll. 5 and 17.

5. (a) Parse ἦδη (l. 8), and τετελεσμένον ἔσται (l. 18).

(b) Explain the case syntax of ἐνκλείας (l. 12), μιν (l. 20), κυνῶν, ἀλκτῆρα (l. 21), and derive ἀλκτῆρα.

6. Who is the speaker in (a)? Account for the feeling displayed.

7. Translate into English :—

(a) κατηγορήται μὲν Ἐρατοσθένους καὶ τῶν τούτου φίλων, οἷς τὰς ἀπολογίας ἀνοίσει καὶ μεθ' ὧν αὐτῷ ταῦτα πέπρακται. ὁ μέντοι ἀγὼν οὐκ ἐξ ἴσου τῇ πόλει καὶ Ἐρατοσθένει· οὗτος μὲν γὰρ κατήγορος καὶ δικαστῆς αὐτὸς ἦν τῶν κρινομένων, ἡμεῖς δὲ νυνὶ εἰς κατηγορίαν καὶ ἀπολογίαν καθέσταμεν. καὶ οὗτοι μὲν τοὺς οὐδὲν ἀδικοῦντας ἀκρίτους ἀπέκτειναν, ὑμεῖς δὲ τοὺς ἀπολέσαντας τὴν πόλιν κατὰ τὸν νόμον ἀξιούτε κρίνειν, παρ' ὧν οὐδ' ἂν παρανόμως βουλόμενοι δίκην λαμβάνειν ἀξίαν τῶν ἀδικημάτων ὧν τὴν πόλιν ἡδίκηκαςι λάβοιτε.

(b) βούλει οὖν, ἐπείπερ ἐφ' ὑψηλοῦ ἐσμέν, ἀναβοήσας παμμέγεθες παραινέσω αὐτοῖς ἀπέχεσθαι μὲν τῶν ματαίων πόνων, ζῆν δὲ αἰεὶ τὸν θάνατον πρὸ ὀφθαλμῶν ἔχοντας, λέγων, ὦ μάταιοι, τί ἐσπουδάκατε περὶ ταῦτα; παύσασθε κάμνοντες· οὐ γὰρ ἐς αἰεὶ βιώσεσθε· οὐδὲν τῶν ἐνταῦθα σεμνῶν αἰδιόν ἐστιν, οὐδ' ἂν ἀπαγάγοι τις αὐτῶν τι σὺν αὐτῷ ἀποθανόν, ἀλλ' ἀνάγκη τὸν μὲν γυμνὸν οἴχεσθαι, τὴν οἰκίαν δὲ καὶ τὸν ἀγρὸν καὶ τὸ χρυσίον αἰεὶ ἄλλων εἶναι καὶ μεταβάλλειν τοὺς δεσπότας.

8. (a) Explain the syntax of ὦν (before τὴν πόλιν).

(b) Who are meant by οὗτοι, and what was Eratosthenes' connection with them?

(c) In (b) explain the mood of παραινέσω, ἀπαγάγοι, and make clear the force of οἴχεσθαι.

9. Translate into English :—

Θηραμένης δὲ καὶ οἱ ἄλλοι πρέσβεις ἐπεὶ ἦσαν ἐν Σελλασίᾳ, ἐρωτώμενοι δὲ ἐπὶ τίνι λόγῳ ἤκοιεν, εἶπον ὅτι αὐτοκράτορες περὶ εἰρήνης, μετὰ ταῦτα οἱ ἔφοροι καλεῖν ἐκέλευον αὐτούς. ἐπεὶ δ' ἤκον, ἐκκλησίαν ἐποίησαν, ἐν ᾗ ἀντέλεγον Κορίνθιοι καὶ Θηβαῖοι μάλιστα, πολλοὶ δὲ καὶ ἄλλοι τῶν Ελλήνων, μὴ σπένδεσθαι Ἀθηναίοις, ἀλλ' διολέσαι. Λακεδαιμόνιοι δὲ οὐκ ἔφασαν πόλιν Ἑλληνίδα ἀνδραποδιεῖν μέγα ἀγαθὸν εἰργασμένην ἐν τοῖς μεγίστοις κινδύνοις γενομένοις τῇ Ἑλλάδι, ἀλλ' ἐποιοῦντο εἰρήνην ἐφ' ᾧ τά τε μακρὰ τείχη καὶ τὸν Πειραιᾶ καθελόντας καὶ τὰς ναῦς πλὴν δώδεκα παραδόντας καὶ τοὺς φυγάδας καταγαγόντας τὸν αὐτὸν ἐχθρὸν καὶ φίλον νομίζοντας Λακεδαιμονίοις ἔπεσθαι καὶ κατὰ γῆν καὶ κατὰ θάλατταν ὅποι ἂν ἡγῶνται.

Education Department, Ontario.

Annual Examinations, 1906.

SENIOR TEACHERS, HONOR AND SCHOLARSHIP
MATRICULATION.

GREEK COMPOSITION.

Examiners: { G. W. JOHNSTON, PH.D.
J. MACNAUGHTON, M.A.
J. C. ROBERTSON, M.A.

1. Translate into Greek:—

- (a) It happens that they do not yet know (*οἶδα*) the object of our expedition.
- (b) They were afraid they should have to cross by night.
- (c) Whenever he comes to the Piraeus, he takes precautions to be seen by nobody.
- (d) He persuaded the majority to march inland on condition of receiving increased pay.
- (e) Should all these doors happen to be open, what could prevent my escape?

2. Translate into Greek:—

Victory thus belonged to the Greeks; but they found it was of no use to them, since Cyrus was dead and his native allies already in retreat. What could they do (*use ἀπορέω*) in the heart of the enemy's country, with no one to pay them their dues or furnish a market? Artaxerxes called upon them to surrender; but they replied that they had won the battle, and would die sooner than give up their arms to the vanquished; if the king made this request under the impression that he was himself victorious, he ought to come in person and take their arms. They were too powerful however to be easily overcome, and the king was not less anxious to be rid of them than they were to be gone. Tissaphernes now came forward with professions of friendship and offered to lead them back to Greece by another route. After deliberating some time on the course they should adopt under these circumstances, they at last decided to follow him. For although they were likely to find the inhabitants hostile, yet they thought it would be easier to get supplies if Tissaphernes were their guide.

Education Department, Ontario.

ANNUAL EXAMINATIONS, 1906.

COMMERCIAL SPECIALISTS.

BOOK-KEEPING—PRACTICE.

Examiners: { J. A. DICKINSON.
R. H. ELTON, B.A.
J. H. PACKHAM, B.A.

A.

The Vancouver Co., trading on the Pacific Coast, finds itself unable to meet its engagements. On July 1st you are requested to make up a Financial Statement for submission to the Creditors. You find the following information from the books and other records:—

Creditors—unsecured	\$ 9,000.00
Creditors—fully secured—holding securities to the value of \$3,000	2,300.00
Creditors—partly secured—holding securities to the value of \$20,000	35,000.00
Creditors—Preferred claims	800.00
Bills Payable	20,000.00
Book Debts in Vancouver (Head Office) good	1,000.00
Book Debts in Vancouver, doubtful—\$300—estimated to produce 25%	
Book Debts \$300—estimated worthless	
Stock in Vancouver cost \$2,000, estimated to produce 60c. on \$	
Stock and Book Debts at four branch stores on the coast—Stock \$20,000, estimated to produce 70c. on \$; Book Debts \$16,000 to produce 80c. on \$	
Liabilities at four branch stores	5,800.00
Four branch buildings, plant, steamers, etc., \$40,000, estimated to realize 50%	
Office furniture \$400—estimated to realize 50%	
Cash on hand	4.00
Cash in Bank	80.00
Property held by fully secured creditors	3,000.00
Shares held by partly secured creditors	20,000.00

Six years ago the capital of the firm was \$42,000. The net profits for the following three years were \$3,000, \$4,000, and \$5,284, respectively; and for the following two years net losses were \$3,500 and \$4,400 respectively, exclusive of \$2,000 annual interest upon Capital and \$4,000 annual withdrawal.

1. Make out the required statement.

[OVER]

2. Make out the Capital and Deficiency accounts from six years ago, showing Net Gain or Net Loss during last year.

B.

The following is a summary of debits and credits taken from the books of "Page and Penny" on December 31, 1905 :—

A. Page, \$1,000—\$19,000 ; B. Penny, \$800—\$17,000 ; Cash on hand, \$1,950 ; Mdse. balance at last closing, \$28,000 ; Purchases, \$94,000—\$2,550 ; Discounts to customers, \$450 ; Discounts off purchases, \$950 ; Freight (inwards) \$750 ; Sales, \$1,500—\$184,000 ; Bank charges, \$300 ; Stable maintenance, \$300 ; Wages, \$45,000 ; Rent, \$2,400—\$800 ; Royalties, \$7,400 ; Patents at last closing, \$2,600 ; Insurance, \$950 ; Travelling Expenses, \$1,600 ; Salaries, \$5,000 ; General Expenses, \$4,800 ; Plant and Machinery, \$6,400 ; Tools, \$600 ; Buildings, \$5,000 ; Bills Receivable, \$4,200 ; Bills Payable, \$5,600 ; Personal Debtors, \$36,000 ; Personal Creditors, \$21,000.

Note 1.—Value of stock on hand, \$12,950 ; unearned insurance, \$350.

Note 2.—Allow for depreciation as follows :—Patents 10% ; Plant and machinery 10% ; Tools 15% ; Buildings 4% ; also 2% off Accounts Receivable for bad debts.

3. From the above summary make a Trading Account, and a Loss and Gain Account. Divide the Net Gain equally between the partners, and show how the partners' accounts stand after the apportionment is made.

4. Make out a Balance Sheet for the firm on Dec. 31, 1905.

C.

F. Moore and S. Mauson entered into partnership in the manufacture of a patent wire fence. Moore owned the patent valued at \$2,000, and the plant and machinery valued at \$500. Mauson furnished \$1,500 in cash. They agree to devote all their time to the business and to share losses and gains equally.

At the close of the year 1905 they decided to apply for incorporation as a Joint Stock Company, under the name of the Excelsior Wire Fence Co., with a capital stock of \$10,000, divided into 100 shares of \$100 each. Moore and Mauson agreed to take as many shares as the amounts to the credit of their Capital Accounts will respectively purchase. They are joined in the Application for Charter by T. Skinner, A. Comfort, and J. Page, who agree to take, and sign the Stock Subscription Book for 5, 10, and 15 shares, respectively. The balance of the

authorized capital is to remain in the treasury until it is found necessary to increase the working capital.

At the date of incorporation the Statement of Assets and Liabilities of the partnership is as follows:—

<i>Assets.</i>		<i>Liabilities.</i>	
Goods partly manufactured..	\$ 400	Dom. Iron and Steel Co.....	\$1600
Materials for manufacturing..	2450	Bills Payable	1400
Plant and Machinery.....	950	Moore's Capital Acct...\$	2500
Tools.....	150	Moore's Share N.G.....	1000
Accounts Collectible	450		3500
Cash on hand and in Bank...	1600	Mauson's Capital Acct..\$	1500
Patent Right.....	3000	Mauson's Share N. G...	1000
			2500
	\$9000		\$9000

5. Make Journal Entries for allotment of the stock, so that the authorized, subscribed and unsubscribed capital may be shown in the Capital Stock and Subscription and Treasury Accounts respectively.

6. Skinner, Comfort and Page each pay the first call of 50% on their subscriptions immediately with cash. The remaining 50% to be paid one month hence.

Make Journal entries to show (a) Moore's and Mauson's subscription fully paid up, and (b) Skinner's, Comfort's, and Page's subscriptions partly paid as indicated.

7. One month later they pay call No. 2 (50%) in cash.

At the first Annual Meeting of the Directors the report shows Net Profits for the year \$12,250, disposed of as follows:— Dividend of 10% on Paid-up Stock; \$2,500 transferred to Reserve Account; and the balance to stand at the credit of Profit and Loss Account.

Make Journal entries for payment of the call No. 2 and and the disposition of the Net Profits.

8. Post the above Journal entries to the proper Ledger Accounts, and take off a Trial Balance.

Education Department, Ontario.

ANNUAL EXAMINATIONS, 1906.

COMMERCIAL SPECIALISTS.

BOOK-KEEPING—THEORY.

Examiners : $\left\{ \begin{array}{l} \text{J. A. DICKINSON.} \\ \text{R. H. ELDON, B.A.} \\ \text{J. H. PACKHAM, B.A.} \end{array} \right.$

1. (a) State the fundamental principles of the Single Entry and Double Entry systems of book-keeping.

(b) State three points of advantage of the latter over the former.

2. (a) State definitely the character of the records in the Purchase Journal, Sales Journal, Discount Journal, Bill Book, Receiving Book, Stock Book, Stores Book, Office Time and Pay Sheet.

(b) Show clearly how each record is transferred to the Ledger without disturbing the equilibrium of debits and credits.

3. (a) Distinguish between Gross Profits and Net Profits, stating in what account each of these results is found.

(b) Show by skeleton outlines, the principal items each of these accounts would most likely contain.

4. (a) Distinguish between Productive Labor charges and Non-Productive charges ; also between Factory Cost and Actual Cost.

(b) Tabulate the items which enter into each of the latter.

5. (a) Distinguish between Capital or Stock Account, Capital Stock Account, and Paid up Capital Stock Account.

(b) Explain the different methods of dividing profits in a partnership. In the absence of any particular agreement as to the division of profits, what method should be used ? Why ?

(c) How are the profits usually apportioned in a Joint Stock Company ?

[OVER]

6. Outline a set of books suitable for use in a Retail Coal and Wood Business, stating the use of each book in the set. Rule a sample of each and show by specimen entries how the records of each contribute to a complete Ledger record.

7. Using the following summary of the Paxton Printing Co's business for 1905, show how (a) the actual cost, and (b) the manufacturer's price, are computed on a contract for 1000 cloth-bound catalogues:—

Summary of business for 1905:—Total output of factory for year, \$30,000; total wages paid out during year, \$10,000, of which \$780 was for proof-reading and \$420 for other non-productive labor; office rent, \$350; insurance, \$420; taxes, \$90; interest, \$150; fuel, light and power, \$210; office salaries, \$2150; traveller's salary and expenses, \$1,850.

Note 1.—Allow depreciation of 5% on plant charged at \$6,000 and 15% on type charged at \$2,000.

Note 2.—Allow 10% profit on Binding (sublet) and 35% for working profit.

Foreman's estimates on above contract as follows:—

Cost of paper required.....	\$40
Wages—Printing Dept.	25
Wages—Lithographing Dept....	35
Binding, (sublet)	20
Total.....	\$120

8. G. Gates is the owner of a business of which the following is the Balance Sheet:—

Assets:—Stock-in-trade, \$5,000; Cash on hand and in Bank, \$4,200; Real Estate, \$2,500; Personal Debtors, \$300.

Liabilities:—Personal Creditors, \$3,000; G. Gates (Capital) \$9,000.

H. Hunter and L. Lane are admitted as equal partners with G. Gates upon each paying G. Gates \$2,500 in Cash and each putting \$4,000 in the business. Make out a Balance Sheet for the new firm on commencing, (a) using a Good-will Account, (b) without a Good-will Account.

Education Department, Ontario.

ANNUAL EXAMINATION, 1906.

COMMERCIAL SPECIALISTS.

MERCANTILE ARITHMETIC.

Examiners : $\left\{ \begin{array}{l} \text{J. A. DICKINSON.} \\ \text{R. H. ELDON, B.A.} \\ \text{J. H. PACKHAM, B.A.} \end{array} \right.$

1. A person wishes to hire an estate for 10 years, the clear annual income of which is \$10,000. He borrows the purchase money at 5% per annum. After paying the annual interest on the purchase money, he invests the remainder of the annual income at 3% per annum, compounded yearly. The amount of these investments at the end of 10 years repays the loan. How much did he pay for the hire of the estate? $1.03^{10} = 1.343916$.

2. Find the amount of \$1500 at the end of 14 years at 3% per annum, compounded half-yearly, and subject to an income tax of $2\frac{1}{2}\%$.

$$\log 1.02947 = .01261370 \qquad \log 1.5018 = .1766121$$

$$\log 1.02946 = .01260948 \qquad \log 1.5017 = .1765832$$

3. *B* and *C* have equal interests in an annuity of \$*A* for $2n$ years (payable annually). They agree to take the payments alternately; *B* taking the first. What ought *B* to pay *C* for the privilege he thus receives?

4. The rental of an estate is \$*mA* to begin with; but at the end of every *Q* years the rental is diminished by \$*A*. Find the present value of the estate.

5. A father leaves his three sons, aged 13, 15 and 17, \$160,000 to be so divided that the shares of the eldest and the youngest placed at compound interest at 5% per annum will amount to equal sums when they become of age, and be together equal to the share of the other son similarly invested. What rate per cent. is realized by a person who pays \$28,561 for the eldest son's share?

[OVER]

6. Give the working formula and the verification formula to construct a table of $S_{\overline{n}|}$ (the amount of an annuity of 1 at the end of N periods) and construct a table for 5 years, rate 4%.

7. The vertical ends of a hollow trough are parallel equilateral triangles with 12 inch sides, the bases of the triangles being horizontal; the distance between the triangular ends is 6 feet. Find:—

- (a) the number of cubic feet the trough will contain;
- (b) the number of gallons it will contain, it being given that a gallon of water weighs 10 lbs., and a cubic foot of water 1000 oz.;
- (c) the distance from the top of the trough to the surface of water when the trough is half full;
- (d) the measurements of a rectangular box, the dimensions of which are as 1 : 2 : 3, which will contain the same number of cubic feet as the trough. (Give answer in inches to two places of decimals.)

8. A railway cutting is made through a ridge, the slopes of which are gradual and reach a height of 8 metres; the length of the cutting is 1 kilometre; the breadth at the bottom is 9·4 metres, and the sides are inclined 30° to the vertical. How many cubic metres of earth are removed, and what is its weight if the S.G. of earth is 2·6?

Education Department, Ontario.

ANNUAL EXAMINATIONS, 1906.

COMMERCIAL SPECIALISTS.

STENOGRAPHY—THEORY.

Examiners: { J. A. DICKINSON.
R. H. ELDON, B.A.
J. H. PACKHAM, B.A.

1. State the main essentials of a good phraseogram.
2. (a) How is the "tion" hook written to (i) curved consonants, (ii) straight consonants, (iii) the circles "s" and "ns" ?
(b) When is "tion" not expressed by the hook ?
(c) Write in full:—cautionary, auctioneer, citation, dictation, positional, transitional, situation, institutions, excursionists, accentuation.
3. After what phonetic forms is the suffix "ing" expressed by the stroke and when by the dot ? Illustrate answer by examples.
4. How are the y and w diphthongs formed and by what signs are they represented ? Give words illustrating these diphthongs. When may these signs be joined to the consonant which follows and with what significance ?
5. Write all the hooks, circles and loops that apply to the strokes k and f, forming a word with each.
6. How are the negative prefixes of words beginning with l, m, n, r, formed ? Give examples.
7. Write the following words fully vocalized:—iota, either, leisure, gaseous, isolate, celtic, issue, infinite, pharmaceutical, diphthong, exclusive, restrain, exasperated, transactions, displeasure.

[OVER]

8. Write the following, distinguishing by different outlines the words with similar consonants :—

- (a) The passionate patient cumbers, his chamber and impairs his features.
- (b) The murder of the murderer who murdered the marauder.
- (c) The Local Board is not likely to regard his regret.
- (d) An austere person had a parcel of parsley under his parasol for the parson who was to preach on Easter Sunday from the porch, to the poorest and purest people at the estuary.

9. Write in reporting style :—

We regret having again to trouble you with reference to the restrictions which we think have been improperly placed upon the increase of proprietary rights, to which our correspondence with you in the present month had reference, but we cannot see that the proposal should preclude the supposition that the depositors are not expressly provided for in the declaration. We think it would be a retrograde policy to endeavor to restrict or in any way to cripple or attempt to displace the directors of the Company at the present time.

10. State the qualifications necessary for a good shorthand clerk.

Education Department, Ontario.

ANNUAL EXAMINATIONS, 1906.

COMMERCIAL SPECIALISTS.

STENOGRAPHY—PRACTICE.

Examiners: { J. A. DICKINSON.
R. H. ELTON, B.A.
J. H. PACKHAM B.A.

NOTE.—*Each candidate must enclose both his shorthand notes and the transcription.*

I.

Dear Sir :—

We take pleasure in presenting you herewith a copy of our list of Economic Lantern Slides, which, owing to our increased facilities for making this line of slides / in large quantities, we are enabled to offer, with few exceptions, at especially low prices, as follows: uncolored, 25 cents; colored, 50 cents. These slides are of the “McAllister” // quality, and, in every instance, the best obtainable of the subject.

Trusting to be favored with an order, which will receive our prompt and careful attention, we are,

(1½ min.)

Yours truly, /

II.

Sir :—

In consideration of your delivering to us “one case Jewellery” which has arrived from Hamburg by the steamship “Fairfax”, without the production of the Bill of Lading for the / said Merchandise, which has not yet come to hand, we hereby undertake to procure for and deliver to you the said Bill of Lading, and to hold you harmless and // keep you indemnified against all claims which may be made upon you under the said Bill of Lading or any of the set of which it forms a part, and / against all loss, costs (as between Attorney or Solicitor and Client), damages and expenses, which you may suffer or be put to by reason of the delivery of the said // goods to us, and further undertake to produce a Bill of Lading for the above goods, duly endorsed, within two months.

We are, Sir,

Yours obediently,

Jacob Fisher & Sons. /

(2½ min.)

[OVER]

III.

I, Rudolph Dickinson, hereby certify that I am manager of Swinburne Sons & Co., the exporters of the articles included in this invoice, and that I am duly authorized to / make and sign this certificate on behalf of the said exporters.

I have the means of knowing and I do hereby certify that this invoice from the said Swinburne Sons // & Co. to William Henderson & Co., Ltd., amounting to Five Hundred and Nineteen Pounds, Ten Shillings and Four Pence, is true and correct; that all the articles included in / the said invoice are the produce or manufacture of one or more of the following countries, viz :— Great Britain, France, Germany; and that a substantial portion of the labour of // one or more of such countries has entered into the production of every manufactured article included in the said invoice, to the extent in each article of not less than / one fourth of the value of every such article in its present condition ready for export to Canada.

Rudolph Dickinson.

Dated at London this

third day of October, 1905. //

(3 min.)

IV.

Shipped in good order and well conditioned, by Charles Williamson & Co., in and upon the good steamship called the “Swift”, whereof is Master for this present voyage Reginald Brent, / and now riding at anchor in London docks and bound for Bombay, Five Cases Jewellery being marked and numbered as in the margin, and are to be delivered in the // like good order and well conditioned at the aforesaid port of Bombay (the Acts of God, the King’s Enemies, Fire, Machinery, Boilers, Steam, and all and every other dangers and / accidents of the seas, rivers, and Steam Navigation, of whatever nature and kind soever excepted) unto Messrs. Williams, Son & Co. or to assigns; Freight for the said goods to // be paid in Bombay with primage and average accustomed.

In witness whereof the Master or Purser of the said ship hath affirmed to two Bills of Lading, all of this / tenor and date, the one of which two Bills being accomplished, the other one to stand void.

Dated in London 3rd January, 1906.

The Indian Transport Co. //

(3 min.)

Education Department, Ontario.

ANNUAL EXAMINATION, 1906.

COMMERCIAL SPECIALISTS.

PENMANSHIP.

Examiners: { J. A. DICKINSON.
R. H. ELTON, B.A.
J. H. PACKHAM, BA.

1. (a) State the principles upon which the Spencerian Capitals are based and give an illustration of each.

(b) Make five series of exercises, each series containing four outlines of six strokes each, showing the development of the following five capitals from their fundamental principles:—

B, R, E, A, C,

(c) State what principles are involved in the formation of the capitals

D, G, H,

and show by means of exercises how you would direct class practice so as to secure the correct formation of these letters.

2. (a) Classify the small letters, stating the basis of your classification.

(b) State the order in which you would teach the small letters, giving examples of exercises showing how to secure the proper formation of one letter of each series.

3. "Writing is almost as important as speaking because every man, whatever his station in life may be, must have constant occasion to convey his thoughts, his wishes, his complaints, his desires in writing, and unless that writing be legible and easily read, with letters well formed, so that a person can read that writing without trouble and delay, it fails by disgusting the person to whom it is addressed."

Write the whole of the above extract in Spencerian style, and the first seven words in the Roman and Italic styles of lettering.

4. Engross the first four lines of the heading of this paper using proportionate sizes for the different lines.

Education Department, Ontario.

ANNUAL EXAMINATIONS, 1906.

COMMERCIAL SPECIALISTS.

GENERAL COMMERCIAL KNOWLEDGE.

Examiners : { J. A. DICKINSON.
R. H. ELDON, B.A.
J. H. PACKHAM, B.A.

1. When is the estate of a deceased person not subject to succession duties? What payments are required from estates subject to succession duties?

2. In winding up a Joint Stock Company under the Ontario Winding-up Act, what are (a) the general powers of, (b) the duties of, the Liquidator?

3. Explain the difference between :—

- (a) Ordinary Stock,
- (b) Cumulative Preference Stock,
- (c) Preference Stock,
- (d) Preference Stock redeemable by company,
- (e) Debentures.

4. (a) What is the duty of an assignee with reference to the assets of an insolvent coming into his hands, and with reference to moneys realized therefrom?

(b) C. D. of Uptown makes an assignment to A. B. of his estate for the benefit of his creditors. Write the public notice to creditors which it is necessary to give, and how should A. B. publish the notice?

5. State the general provisions of a Will. What requirements must be observed in signing and attesting a Will?

6. In a promissory note signed by two or more persons, what is the respective significance of “I”, “we”, “we jointly”, and “we jointly and severally”?

[OVER]

7. What principles of Law apply to the transfer of overdue bills?

8. What is the legal effect of the words written upon the face of a cheque, "in full of account to date"?

9. (a) A.B. is a monthly tenant in C.D.'s house, without a lease. C.D. wishes to raise the rent from \$12 to \$15 per month, to take effect May 1. Write the required notice.

(b) A.B. has a lease for one year from Jan. 1, 1905, of C.D.'s house, rent payable at the end of each month. No renewal was made but A.B. remains in the house. On Jan. 15, 1906, C.D. notified A.B. that the rent would be raised from \$12 to \$15 per month. Write the notice.

(c) Had A.B. already paid the rent for Jan., 1906, in (b), what effect would this have had on the relation between A.B. and C.D.?

10. Define a Chattel Mortgage. What should a Chattel Mortgage contain? For what time does it hold the property as security for the debt, and for what time does it hold the debtor?

11. Write short notes on Cheques under the following heads:—

- (a) Definition;
- (b) Presentment;
- (c) Duty of Bank not to pay;
- (d) Crossing.

12. (a) The weight of a British sovereign is 7.98805 grammes of gold eleven-twelfths fine, and 155 twenty-franc pieces are coined from one kilogramme of gold nine-tenths fine. Find the mint par of exchange between London and Paris.

(b) If the cost of transmitting a sovereign from London to Paris is 10 centimes, find the favorable and unfavorable specie points. Give the causes of fluctuation of the rate of exchange between these points.

Education Department, Ontario.

ANNUAL EXAMINATIONS, 1906.

COMMERCIAL SPECIALISTS.

AUDITING.

Examiners : { J. A. DICKINSON.
R. H. ELTON, B.A.
J. H. PACKHAM, B.A.

1. (a) State the object, scope and advantages of an audit.
(b) Compare the "Continuous" and "Completed" methods of auditing.
2. (a) Draw up a set of instructions for auditing the books of a Joint Stock Company, such as a principal would give to his audit clerk.
(b) Draw up a set of instructions such as an auditor might prepare for the bookkeeper of a business, the books of which are about to be audited.
3. (a) Distinguish between Capital Expenditure and Revenue Expenditure.
(b) Distinguish between Fixed Assets and Floating Assets, (i) as to their nature, (ii) as to their valuation.
4. (a) What precautions should an auditor take against fraudulent entries during the process of auditing, and what against fraud or error through bad or ambiguous figures, corrections and erasures?
(b) To what extent should he examine the records of the period previous to the one being audited?
(c) What vouching is necessary in connection with Receipts, Payments, Petty Cash, Wages, Bank Account, and Journal Entries.
5. (a) How should Directors' Fees and Preliminary Expenses be treated?
(b) Discuss Secret Reserves as to their nature, purpose and justification.

[OVER]

6. (a) Classify the items of Profit and the items of Expense in a Revenue Account.

(b) How should an auditor view the former as available for dividends, and the latter as a justifiable charge against the current year's revenue ?

7. (a) Where should the Reserve Fund originate and what should be the purpose of such a fund ?

(b) How would you as auditor expect to find the following recorded :—

- (i) Six per cent. to be written off machinery ;
- (ii) Five per cent. allowance to be made for bad and doubtful debts ?

Education Department, Ontario.

ANNUAL EXAMINATIONS, 1906.

COMMERCIAL SPECIALISTS.

ECONOMICS.

Examiners: { J. A. DICKINSON.
R. H. ELDON, B.A.
J. H. PACKHAM, B.A. }

1. Define *Political Economy*. State how far it concerns the government and how far the individual, and what points must be investigated in this connection.

2. What is economic wealth and how is it to be estimated? What are the economic features of wealth and to whom are they applicable?

3. State the meaning and virtues of division of labor, and the limits of it *now* and in purely *barter times*.

4. In what two senses may value be considered, and how may it be measured? Distinguish normal price from price as connected with value in its two senses. What influences have a bearing on variations in price?

5. What is Capital and how far is it related to Interest? What fixes the price of loans?

6. Discuss flexibility and inflexibility of wages as related to the labor market and the cost of production.

7. What relation exists between profits and rent? Illustrate by showing how this applies to the farmer and the employer of industrial labor. Do large profits imply the underpayment of workmen or the defrauding of the public?

8. State and explain the maxims of taxation.

9. "The present condition of industry and distribution is not ideal." Would any form of Socialism or Anarchism amend this state of affairs?

10. What is meant by *Balance of Trade*, and how is the price of exchange affected thereby? Discuss Balance of Trade as connected with the movement of gold in relation to British trade.

Education Department, Ontario.

ANNUAL EXAMINATIONS, 1906.

COMMERCIAL SPECIALISTS.

HISTORY OF COMMERCE AND TRANSPORTATION.

Examiners : { J. A. DICKINSON.
R. H. ELDON, B.A.
J. H. PACKHAM, B.A.

1. On what does commerce depend and how does it commence between nations? Illustrate your answers by reference to certain nations.

2. Give a short account of five of the earliest commercial nations of ancient times, as to their rise, colonies, industries, manufactures, means of transportation, and decay.

3. What was the Feudal System? State its effects on commerce.

4. Give an account of the origin, growth, and decline of Venice as a centre of commerce.

5. What was the origin of the Hansa? Give an account of its progress and downfall. State its influence on civilization.

6. Write a brief account of the Eastern commercial empires of modern times.

7. State the reasons of the industrial revolution in the latter half of the eighteenth century, and its effect on English mining, manufacturing, and agriculture.

8. What was the effect of the Napoleonic wars on (a) English commerce, (b) French commerce?

9. Give a general description of Canadian transportation facilities, and state their connection with the progress of our domestic commerce.

Education Department, Ontario.

December Examinations, 1906.

COUNTY MODEL SCHOOLS.

Methods in Arithmetic and Penmanship.

Examiners: { J. DEARNESS, M.A.
S. B. SINCLAIR, PH.D.
J. WAUGH, D.PÆD.

1. (a) In the subtraction of 348 from 765, explain clearly two methods of obtaining the units figure of the remainder.

(b) What advantages are claimed for each method? Give reasons of preference for one of the methods.

2. "If $3\frac{1}{4}$ pounds cost 17 cents, find the cost of 26 pounds."

(a) Give a solution by direct measurement (i.e. measuring 26 pounds by $3\frac{1}{4}$ pounds), and one by the unitary method.

(b) What method would you prefer for general use? Why?

3. Show how you would teach the proof of the rule for:—

(a) division of vulgar fractions;

OR,

(b) reduction of a mixed repetend to a vulgar fraction.

4. What steps of explanation and solution would your black-board show at the conclusion of a lesson, in teaching this problem:—In squaring a round log one foot in diameter, what per cent. of the wood is cut away?

5. Assuming that you have a graded Form III. class of forty pupils, outline your plan of conducting a writing lesson.

6. "The secret of success in penmanship lies in making the pupils self-critical." By what means may self-criticism be inculcated?

Education Department, Ontario.

December Examinations, 1906.

COUNTY MODEL SCHOOLS.

Methods in Literature and Spelling.

Examiners: { J. DEARNESS, M.A.
S. B. SINCLAIR, PH.D.
J. WAUGH, D.PÆD.

1. Whither, midst falling dew,
While glow the heavens with the last steps of day,
Far, through their rosy depths, dost thou pursue
 Thy solitary way ?
- Vainly the fowler's eye
Might mark thy distant flight to do thee wrong,
As, darkly painted on the crimson sky,
 Thy figure floats along.
- Seek'st thou the plashy brink
Of weedy lake, or marge of river wide,
Or where the rocking billows rise and sink
 On the chafed ocean side ?
- There is a Power whose care
Teaches thy way along that pathless coast,—
The desert and illimitable air,—
 Lone wandering, but not lost.
- All day thy wings have fanned,
At that far height, the cold, thin atmosphere ;
Yet stoop not, weary, to the welcome land,
 Though the dark night is near.
- And soon that toil shall end ;
Soon shalt thou find a summer home, and rest,
And scream among thy fellows ; reeds shall bend
 Soon o'er thy sheltered nest.
- Thou'rt gone ; the abyss of heaven
Hath swallowed up thy form ; yet on my heart
Deeply hath sunk the lesson thou hast given,
 And shall not soon depart :
- He, who from zone to zone,
Guides through the boundless sky thy certain flight,
In the long way that I must tread alone,
 Will guide my steps aright.

[OVER]

(a) Outline a literature lesson on this poem, and specify what aspects of it your teaching would specially emphasize.

(b) How would you test your pupils' appreciation of the meaning and beauty of the poem?

2. "Notes are an evil, but they are a necessary evil." In what sense is the first part of this statement true in regard to the study of literature?

3. It is impossible to describe the triumph of that moment; here was the reward for all our labor,—for the years of tenacity with which we had toiled through Africa. England had won the sources of the Nile! Long before I had reached this spot, I had arranged to give three cheers with all our men in English style in honor of the discovery, but now that I looked down upon the great inland sea lying nestled in the very heart of Africa, and thought how vainly mankind had sought these sources throughout so many ages, and reflected that I had been the humble instrument permitted to unravel this portion of the mystery, when so many greater than I had failed, I felt too serious to vent my feelings in vain cheers for victory, and I sincerely thanked God for having guided and supported us through all dangers to the good end.

Write a set of questions, with answers, intended to prepare your pupils to paraphrase the above passage so as to express its meaning and significance in the briefest possible form.

4. In cases of pupils specially deficient in spelling, what causes would you suspect, and what remedies in each case would you apply?

5. Specify the means by which you would secure adequate reviews of the spelling lessons.

Education Department, Ontario.

December Examinations, 1906.

COUNTY MODEL SCHOOLS.

School Law and Regulations.

Examiners: { J. DEARNESS, M.A.
S. B. SINCLAIR, PH.D.
J. WAUGH, D.PÆD.

1. State the legal duties of teachers in respect to :—
 - (a) moral training of pupils ;
 - (b) text-books ;
 - (c) pupils suspected of exposure to infectious disease ;
 - (d) suspension of a pupil for misconduct.

2. For what reasons and by whom may a teacher's certificate be suspended ?

3. What penalties are prescribed for :—
 - (a) making false returns to the Inspector ?
 - (b) disturbing a public school ?

4. Quote the Regulations relating to blackboards, maps, ventilation, area of grounds.

Education Department, Ontario.

December Examinations, 1906.

COUNTY MODEL SCHOOLS.

Science of Education.

Examiners: { J. DEARNESS, M.A.
S. B. SINCLAIR, PH.D.
J. WAUGH, D.PÆD.

1. (a) Define (i) non-voluntary attention, (ii) voluntary attention.
(b) State definitely four ways in which your study of "the characteristics and the development of the attention of children between the ages of five and fifteen years" will aid you in teaching.
2. (a) Give an analysis of the process by which a child gains a perception of an object on the teacher's desk.
(b) Show that apperception is involved in this process.
(c) From (a) and (b) deduce reasons for seating a near-sighted pupil near the blackboard.
3. (a) What is meant by mechanical or verbal memory?
(b) What are the objections to an undue exercise of verbal memory?
(c) Under what conditions is the use of verbal memory justifiable?
4. A boy twelve years of age is met on the way to school by other boys who urge him to play truant.
How would you train pupils to resist such a temptation?

Education Department, Ontario.

December Examinations, 1906.

COUNTY MODEL SCHOOLS.

Methods in History and Geography.

Examiners: { J. DEARNESS, M.A.
S. B. SINCLAIR, PH.D.
J. WAUGH, D.PÆD.

1. (a) Specify the chief relations between history and geography.

(b) What mental processes are trained by the study of history?

(c) Outline a lesson on "The Discovery of America," on lines suggested by your answers to (a) and (b).

2. What differences would you make in the treatment of a lesson on Alfred the Great *or* Jacques Cartier to classes in Form II. and Form IV., respectively?

3. Discuss the suitability of myth, folk-lore, and legend as an introduction to the formal study of history. Suggest any other means of approaching this subject.

4. Outline a lesson on "The River St. Lawrence" for a class in Form IV. Specify the ends in view in the above lesson.

5. Discuss the value and place of outline maps and of the moulding board as auxiliaries in teaching.

Education Department, Ontario.

December Examinations, 1906.

COUNTY MODEL SCHOOLS.

School Management.

Examiners: { J. DEARNESS, M.A.
S. B. SINCLAIR, PH.D.
J. WAUGH, D.PÆD.

1. "A teacher teaches by what he *is* as well as by what he *says*." Amplify this statement, devoting separate paragraphs to:—culture, demeanor, energy, sympathy.

2. Discuss as incentives:—prizes, published honor lists, monthly reports to parents, sense of duty.

3. What principles should govern the construction of a timetable? Illustrate each.

4. State, and illustrate, three kinds of questions which should be avoided or used sparingly. Show clearly why each kind is objectionable.

5. A school-room is heated by a stove. Describe means which may be adopted to secure equable heating and good ventilation.

Education Department, Ontario.

December Examinations, 1906.

COUNTY MODEL SCHOOLS.

Methods in Grammar and Composition.

Examiners: { J. DEARNESS, M.A.
S. B. SINCLAIR, PH.D.
J. WAUGH, D.PÆD.

1. "The essential parts of the simple sentence and the functions and definitions of the parts of speech should be arrived at by Induction."

Discuss the foregoing statement, and describe your method of teaching the definition of an adjective.

2. In the sentence "John was struck yesterday" the pupils say that the verb is intransitive because it has no object.

Outline a lesson to correct their view of a transitive verb.

3. Outline your method of teaching Composition to a Senior Form III. class, under the headings:—

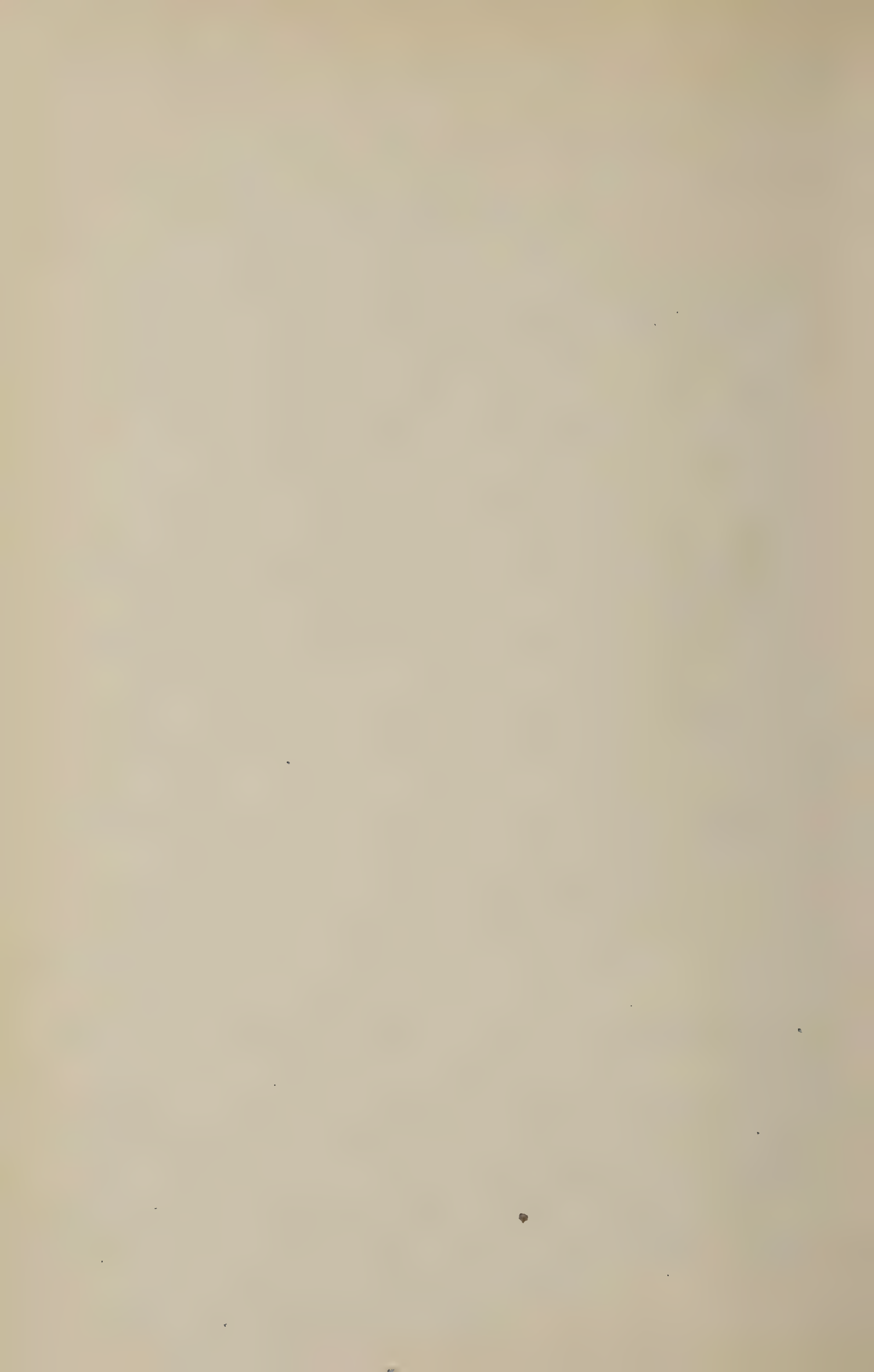
- (a) Selection of subjects ;
- (b) Preparation by teacher and pupil ;
- (c) Methods of criticism and correction.

4. How would you teach the *use* of capital letters ?

5. What methods would you adopt to enlarge and enrich the vocabulary of pupils ?

6. "I have for my room a big room at the top of the house, which is really the guest-room ; but it happens that my room down-stairs is occupied and therefore I have the guest-room, which I like much better."

How would you lead a class to criticise and reconstruct the above sentence ?



Education Department, Ontario.

ANNUAL EXAMINATIONS, 1906.

SPECIAL PAPER IN MATHEMATICS

For Scholarship Candidates Only.

Examiners: $\begin{cases} \text{W. H. BALLARD, M.A.} \\ \text{J. MATHESON, M.A.} \\ \text{W. PRENDERGAST, B.A.} \end{cases}$

1. Sum to n terms the series $1 + 11 + 111 + 1111 + \dots$
2. If x, y, z are all real quantities, and
$$x^4 + y^4 + z^4 + y^2 z^2 + z^2 x^2 + x^2 y^2 = 2xyz(x + y + z),$$
show that $x = y = z$.
3. (a) Prove that the sum of the first r coefficients in the expansion of $(1-x)^{\frac{m}{n}}$ is equal to the r^{th} coefficient in the expansion of $(1-x)^{\frac{m-n}{n}}$
(b) Sum to n terms the series
$$1 + \frac{1}{2} + \frac{1}{2} \cdot \frac{3}{4} + \frac{1}{2} \cdot \frac{3}{4} \cdot \frac{5}{6} + \frac{1}{2} \cdot \frac{3}{4} \cdot \frac{5}{6} \cdot \frac{7}{8} + \dots$$
4. α, β, γ are positive angles, and $\sin^2 \alpha + \sin^2 \beta + \sin^2 \gamma = 1$. Show that $\alpha + \beta + \gamma$ must be greater than a right angle.
5. θ is an angle whose sine is greater than $\frac{1}{2}$. Divide it by a geometrical construction into two parts, α and β , such that $\sin \alpha \cdot \cos \beta = \frac{1}{2}$.
6. ABC is a triangle and P is any point in the plane. Perpendiculars PD, PE, PF , are drawn to the sides, produced if necessary. Show that the perimeter of the triangle DEF is $PA \sin A + PB \sin B + PC \sin C$.
7. ABC is a triangle of which the base AB is fixed. Find the locus of C such that $ab \cos C$ may be constant.

[OVER]

8. Construct an equilateral triangle such that one vertex shall be at a given point, and the other two vertices shall be on two given parallel straight lines respectively.

9. The five diagonals of a regular pentagon intersect in five points within it. Find the area of the pentagon with these points for vertices, if the area of the given pentagon is A .

10. A circle passes through the middle points of the sides of a triangle. Prove that it also passes through the feet of the altitudes, and bisects the distances between the vertices and the point of intersection of the altitudes.

11. A quadrilateral is inscribed in a circle, and P is any point on the circumference. Show that the rectangle on the perpendiculars from P to any two opposite sides is equal to the rectangle on the perpendiculars from P to the two diagonals.

Education Department, Ontario.

ANNUAL EXAMINATIONS, 1906.

SPECIAL PAPER IN CLASSICS

For Scholarship Candidates Only.

Examiners: { G. W. JOHNSTON, PH.D.
J. MACNAUGHTON, M.A.
J. C. ROBERTSON, M.A.

Candidates writing on Latin only will omit questions 1, 2, 3 and 10,
and the Greek part of 7 and 8.

1. Explain the following terms:— paroxytone, crasis, caesura, enclitic, protasis, copula, labial mutes.

2. Identify the following forms:—

(*Homeric*) προσεβήσετο, ἔφαν, οἴεσσι, ἄσσον, ἐνμμελίω,
(βίηφι τε) ἦφι ;

(*Attic*) ὅτου, ἀποκτινύναι, εἴασαν, εἴησαν, θᾶσσον, ἁλόντα,
έλόντα, καθεδούμαι, παρεστῶτος.

3. Give the mood-synopsis of κατέστην, εἶμι and εἶδον ; and write out the indicative of οἶδα and ἦν, the imperfect indicative active of πλέω, and the future indicative active of ἀγγέλλω.

4. Translate:—

Arma virumque cano, Trojae qui primus ab oris
Italiam, fato profugus, Lavinaque venit
litora, multum ille et terris jactatus et alto
vi superum, saevae memorem Junonis ob iram ;
multa quoque et bello passus, dum conderet urbem,
inferretque deos Latio, genus unde Latinum,
Albanique patres, atque altae moenia Romae.

5. Scan the following lines of Horace, and give the name either of the metre or of the stanza:—

(a) Integer vitae scelerisque purus ;

(b) Parcus deorum cultor et infrequens ;

(c) Nil desperandum Teucro duce et auspice Teucro.

[OVER]

6. (a) Write in Latin :—December 25th.

(b) Indicate as clearly as you can the pronunciation of the following words according to the Roman method :—
curas, jeci, augent.

7. Translate into both Greek and Latin :—

(a) Saying this, he persuades both.

(b) No one is allowed to enter.

(c) We must go before he sees us.

(d) It is clear that he is a man of the utmost courage.

(e) Whenever we asked him not to return, he would ask us why we said this.

8. Comment on the syntax of the underlined words in the following sentences :—

(a) Ὅπως οὖν ἔσεσθε ἄνδρες ἄξιοι τῆς ἐλευθερίας ἣς κέκτησθε.
(*Xenophon.*)

(b) τοῦναντίον ἢ ἐν τῷ πρὸ τοῦ χρόνῳ. (*Lysias.*)

(c) καὶ μεταξὺ λέγοντος, ἀπὸ τοῦ τέγους κεραμὶς ἐπιπесоῦσα,
οὐκ οἶδ' ὅτου κινήσαντος, ἀπέκτεινεν αὐτόν. (*Lucian.*)

(d) ἀνδρὸς ἔπειτ' ὠφελλον ἀμείνωνος εἶναι ἄκοιτις,
ὅς ἤδη νέμεσίν τε καὶ αἴσχεα πόλλ' ἀνθρώπων. (*Iliad.*)

(e) ἢ νεώτερός εἰμι καὶ οὐ πῶ χερσὶ πέποιθα
ἄνδρ' ἀπαμύνασθαι, ὅτε τις πρότερος χαλεπήνῃ. (*Odyssey.*)

(f) domino navis quis sit aperit, multa pollicens si se
conservasset. (*Nepos.*)

(g) post diem quartum quam est in Britanniam ventum
naves solverunt. (*Caesar.*)

(h) aterque cruento
pulvere, perque pedes trajectus lora tumentes.
(*Virgil.*)

(i) regina . . . quidlibet impotens
sperare fortunaque dulci
ebria. (*Horace.*)

(j) Est igitur humanitatis vestrae magnum numerum
eorum civium calamitate prohibere. (*Cicero.*)

9. (a) Give the dates of Cicero's birth, consulship, exile and death, and also of the two speeches read.

(b) Briefly characterise the philosophy of life exhibited in the odes of Horace.

10. Describe, giving illustrations or references where possible, the difference between Homer's and Virgil's ways of telling their story.

Education Department, Ontario.

ANNUAL EXAMINATIONS, 1906.

SPECIAL PAPER IN FRENCH AND GERMAN

For Scholarship Candidates Only.

Examiners: { J. W. G. ANDRAS, PH.D.
P. EDGAR, PH.D.
J. SQUAIR, B.A.

I.

Translate into English :—

Tel était mon train de vie aux Charmettes quand je n'étais occupé d'aucuns soins champêtres ; car ils avaient toujours la préférence, et dans ce qui n'excédait pas mes forces je travaillais comme un paysan ; mais il est vrai que mon extrême faiblesse ne me laissait guère alors sur cet article que le mérite de la bonne volonté. D'ailleurs je voulais faire à la fois deux ouvrages, et, par cette raison, je n'en faisais bien aucun. Je m'étais mis dans la tête de me donner par force de la mémoire ; je m'obstinais à vouloir beaucoup apprendre par cœur. Pour cela, je portais toujours avec moi quelque livre qu'avec une peine incroyable j'étudiais et repassais tout en travaillant. Je ne sais pas comment l'opiniâtreté de ces vains et continuels efforts ne m'a pas enfin rendu stupide. Il faut que j'aie appris et rapppris bien vingt fois les *Églogues* de Virgile, dont je ne sais pas un seul mot. J'ai perdu ou dépareillé des multitudes de livres, par l'habitude que j'avais d'en porter partout avec moi, au colombier, au jardin, au verger, à la vigne. Occupé d'autre chose, je posais mon livre au pied d'un arbre ou sur la haie ; partout j'oubliais de le reprendre, et souvent au bout de quinze jours je le retrouvais pourri ou rongé des fourmis et des limaçons. Cette ardeur d'apprendre devint une manie qui me rendait comme hébété, tout occupé que j'étais sans cesse à marmotter entre mes dents.

II.

Translate into French :—

In leaving that mountain you pass a great valley to go to another mountain where St. Catherine was buried by the angels of our Lord ; in this valley is a church of forty martyrs, where the monks of the abbey often sing. Next you go up the

[OVER]

mountain of St. Catherine, which is higher than the mount of Moses; and there, where St. Catherine was buried, is neither church nor chapel, nor other house; but there is a heap of stones about the place where her body was placed by the angels. There was formerly a chapel there, but it was torn down, and the stones lie still scattered about.

III.

Write in French a short composition of about two hundred words on *one* of the following topics:—

- (a) A winter day in the town.
- (b) A trip to France.
- (c) My dearest friend.
- (d) The life I should like to live.

IV.

Translate into English:—

Bis jetzt, scheint es, war die allgemeine Ruhe der aufrichtige Wunsch des Prinzen von Oranien, der Grafen von Egmont und Hoorn und ihrer Freunde gewesen. Der wahre Vortheil des Königs, ihres Herrn, hatte sie eben so sehr, als das gemeine Beste geleitet; ihre Bestrebungen wenigstens und ihre Handlungen hatten eben so wenig mit jenem, als mit diesem gestritten. Es war noch nichts geschehen, was sich nicht mit der Treue gegen ihren Fürsten vertrug, was ihre Absichten verdächtig machte, oder den Geist der Empörung bei ihnen wahrnehmen ließ. Was sie gethan hatten, hatten sie als verpflichtete Glieder eines Freistaats gethan, als Stellvertreter und Sprecher der Nation, als Rathgeber des Königs, als Menschen von Rechtschaffenheit und Ehre. Die Waffen, mit denen sie die Anmaßungen des Hofes bestritten, waren Vorstellungen, bescheidene Klagen, Bitten gewesen. Nie hatten sie sich von dem gerechtesten Eifer für ihre gute Sache so weit hinreißen lassen, die Klugheit und Mäßigung zu verläugnen, welche von der Parteilucht sonst so leicht übertreten werden. Nicht alle Edeln der Republik hörten diese Stimme der Klugheit, nicht alle verharrten in diesen Grenzen der Mäßigung.

V.

Translate into German:—

A countryman brought five beautiful peaches with him from the town. He gave his wife one and one to each of his four boys. In the evening the father asked the children how they had liked their peaches. The eldest boy said he had eaten

his and would save the stone so as to have a tree some day. The youngest said he had also eaten his, but had thrown away the stone and his mother had given him the half of hers. The second son said that he had picked up the stone which his brother had thrown away, had broken it and eaten the kernel. His own peach he had sold.

VI.

Write in German a short composition of about two hundred words on *one* of the following topics:—

- (a) A summer day in the woods.
- (b) A trip to Germany.
- (c) My favorite book.
- (d) One's native land.

Education Department, Ontario.

ANNUAL EXAMINATIONS, 1906.

SPECIAL PAPER IN SCIENCE

For Scholarship Candidates Only.

Examiners: { F. B. KENRICK, PH.D.
J. C. McLENNAN, PH.D.
W. H. PIERSOL, B.A., M.B.

NOTE.—Parts A. B. and C. are of equal value. Candidates will write their answers to each part in a separate examination book and place each book in a separate envelope, designating the envelope *Special Paper in Science—Part A.—Physics, etc., as the case may be.*

PART A.—Physics.

1. A body of mass 10 pounds slides down an inclined plane 100 yards long with a slope of 1 in 25. The frictional resistance of the plane is $\frac{1}{300}$ of the weight of the body. If the body has a velocity of 26 feet per second at the foot of the plane, what is the work done against the resistance of the air?

2. If a barometer with an imperfect vacuum stands at heights of 29 and $29\frac{1}{4}$ inches when the true heights are 30 and 30.5 inches, what will be the true height of the barometer when the imperfect one stands at 29.15 inches?

3. Apply Ohm's Law to show that the joint resistance r of a divided circuit containing two branch resistances of r_1 and r_2 ohms, respectively, is given by $\frac{1}{r} = \frac{1}{r_1} + \frac{1}{r_2}$.

4. Two plane mirrors are placed parallel to each other on a table 40 centimetres apart, and a lighted candle is placed between them at a distance of 15 centimetres from one of them:—

(a) Find the positions of three images in each mirror.

(b) Draw the pencil of rays by which the second image in one of the mirrors can be seen by an eye looking at it.

5. A and B are two wires of the same material and thickness. A is 2 feet long, and is stretched by a weight of $8\frac{1}{2}$ pounds. B is 4 feet long, and is stretched by a weight of 34 pounds. How are the notes which the wires yield when vibrated related to each other?

[OVER]

PART B.—*Chemistry.*

6. Two aqueous solutions are made up containing respectively 10 grammes of pure potassium hydroxide (KOH), and 20 grammes of pure sulphuric acid (H_2SO_4) per litre. How many cubic centimetres of the sulphuric acid solution would be required to neutralize exactly 10 cubic centimetres of the potassium hydroxide solution? ($\text{K}=39$, $\text{O}=16$, $\text{S}=32$.)

7. A gaseous chemical substance is shown by analysis to contain 80% of carbon and 20% of hydrogen. 22.4 litres of the gas are found to weigh 28.3 grammes at 17°C and 760 mm. pressure. Find the formula of the compound. (All arithmetical work must be given.) ($\text{C}=12$, $\text{H}=1$.)

8. Given a supply of common salt (sodium chloride), lime stone (calcium carbonate), sulphuric acid, and coal; describe methods for preparing from any or all of these materials samples of lime, bleaching powder, and sodium carbonate.

PART C.—*Biology.*

9. (a) Give an account of the changes by which the ovule of the bean is converted into the seed.

(b) How does the corresponding process differ in the case of indian corn?

(c) In what ways are seeds conveyed to a distance from the parent plant.

10. (a) Compare the external form and appendages of a millipede with those of a spider.

(b) Show how the differences noted are related to the differing habits of the two animals.

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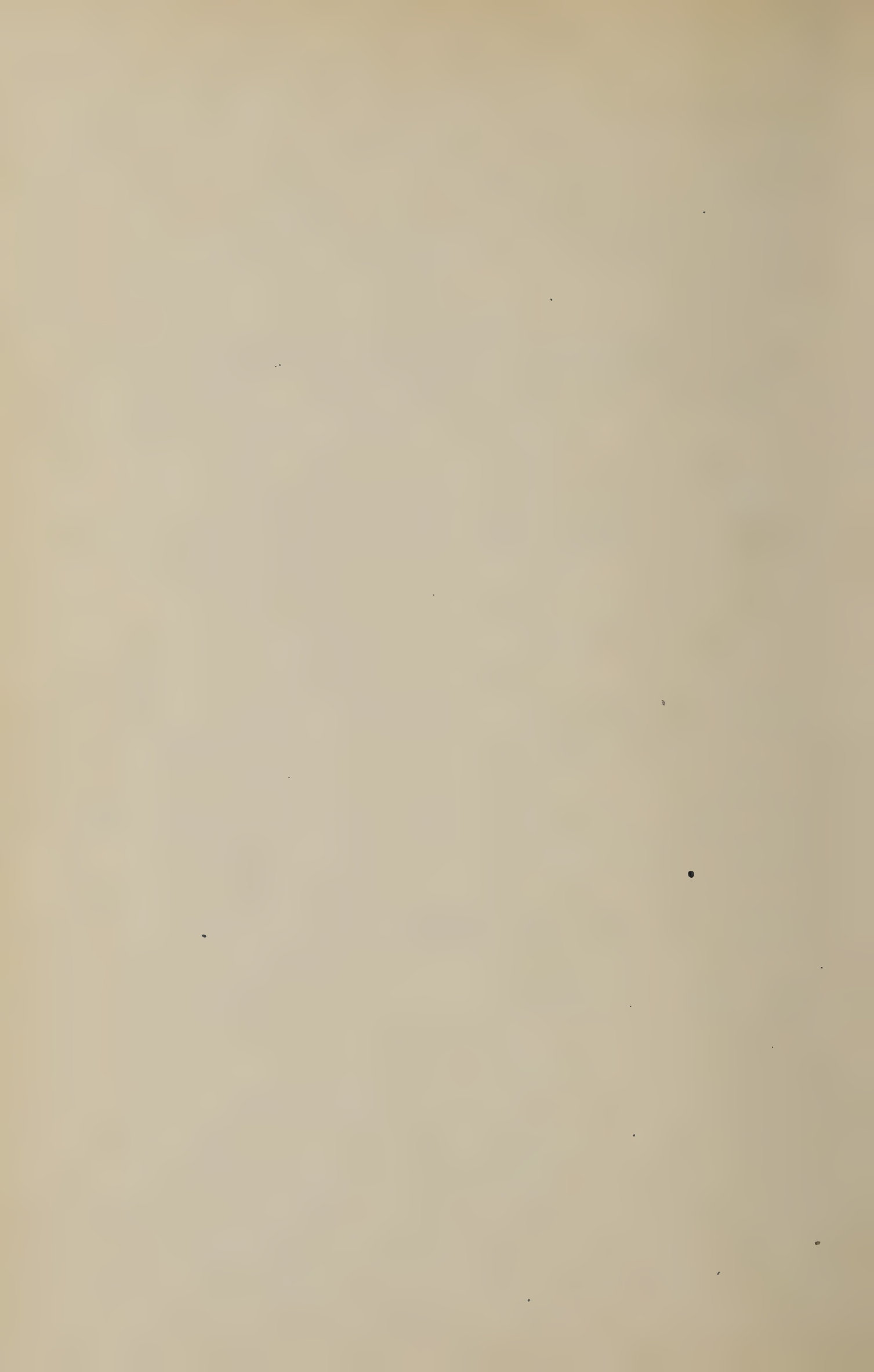
ART SPECIALIST.

FREEHAND SKETCHING.

Examiners: { J. H. CAMERON, M.A.
S. K. DAVIDSON.
A. H. LEAKE.

NOTE.—*Use pencil, crayon, or brush with ink.*

1. Sketch the model in outline with a suggestion of shade (greatest dimension not to be less than six inches).
2. Sketch in outline or in silhouette, with ink and brush, the same model in the act of running.
3. Sketch in light and shade the view pointed out to you from the window of the room.



Education Department, Ontario.

Annual Examinations, 1906.

ART SPECIALIST.

FREEHAND DRAWING.

Examiners: { J. H. CAMERON, M.A.
S. K. DAVIDSON.
A. H. LEAKE.

NOTE.—*Candidates may use pencil, crayon, pen and ink, or brush with ink. Drawings to be finished in light and shade. Outline sketches will not be accepted.*

1. Draw the objects placed before you (greatest dimension of picture not to be less than eight inches).

2. Illustrate the following lines (greatest dimension of drawing not to be less than eight inches):—

“The wide spreading pond, and the mill which stood by it,
The bridge, and the rock, where the cataract fell;
The cot of my father, the dairy house nigh it,
And e’en the rude bucket which hung in the well.”

(From the “Old Oaken Bucket”, by Woodworth.)

3. How would you teach pupils to measure the apparent length of lines in an object, illustrating your answer by sketches?

4. Define “technique”, “values”, “chiaroscuro”.

Education Department, Ontario.

Annual Examinations, 1906.

ART SPECIALIST.

CLAY MODELLING.

Examiners: { J. H. CAMERON, M.A.
S. K. DAVIDSON.
A. H. LEAKE.

NOTE.—*Four questions to be attempted. No measuring tools to be used.*

1. Make an exact copy of the group of fruits presented, placing it on a tile of suitable size and shape.

2. Model a cube, cone, and cylinder, combining them in an artistic group on a tile, paying proper attention to proportion and arrangement.

3. Model a relief map, showing:—

(a) a typical river basin,

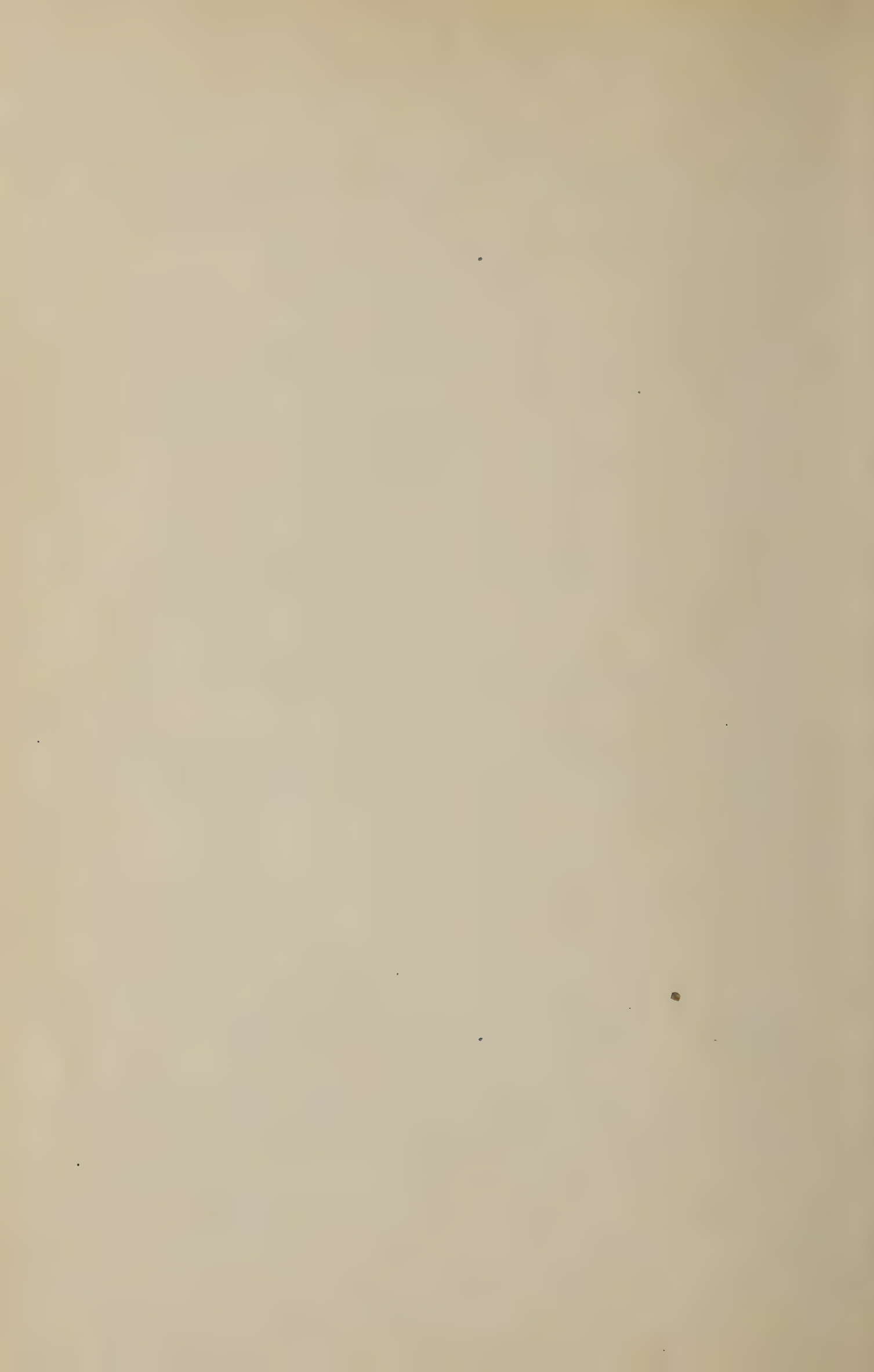
or

(b) a typical coast line.

4. Model from memory a cup and saucer, a loaf of bread, an oak leaf *or* a maple leaf. To be placed on a tile.

5. Choose one of the three casts presented and make an exact copy. The size of the finished model must not be that of the cast, but should bear some definite proportion to it.

6. Design a decorative panel, using the anthemion as a basis.



Education Department, Ontario.

Annual Examinations, 1906.

ART SPECIALIST.

COLOR DRAWING.

Examiners: { J. H. CAMERON, M.A.
S. K. DAVIDSON.
A. H. LEAKE.

1. Paint the flowers and fruit submitted, as grouped.
2. Paint the Japanese parasol as you see it from a distance of about ten feet. Do not make an accurate drawing of all the figures on it; merely give the color effect. (Greatest dimension to be not less than six inches.)
3. Paint a landscape in spring coloring. Use simple washes to express blue sky, green fields, distance, and a pool of water or a pathway in the foreground.
4. In a vertical oblong 3 inches by 5 inches, show decorative treatment of one of the flowers submitted in question 1. Use flat washes of color.

Education Department, Ontario.

Annual Examinations, 1906.

ART SPECIALIST.

INDUSTRIAL DESIGN.

Examiners: { J. H. CAMERON, M.A.
S. K. DAVIDSON.
A. H. LEAKE.

NOTE.—*Four questions only may be attempted.*

1. Show by examples the “radial”, “spiral”, and “mass” methods of filling a space four inches by seven inches.
2. Show by separate sketches what you understand by “parallelism”, “radiation”, and “rectangulation”. Make a sketch showing the combination of the three methods in one design.
3. Design a book cover, full size, using the crocus as a *motif*. The title of the book is “Gardens Old and New.”
4. Design a square tabouret 22 inches high. Show by separate sketches full details of all joints used, and give a finished drawing of the completed object.
5. Show by sketches examples of the rythmical adaptation to one another of different kinds of solids.
6. Design in appropriate colors a combined Christmas and New Year card, using the holly, Santa Claus, or Father Time as a *motif*.

Education Department, Ontario.

Annual Examinations, 1906.

ART SPECIALIST.

GEOMETRICAL AND MECHANICAL DRAWING.

Examiners: { J. H. CAMERON, M.A.
S. K. DAVIDSON.
A. H. LEAKE.

NOTE.—*Not more than four questions are to be taken, but 1 and 6 must be included.*

1. Draw in perspective a triangular prism 9 feet long, having its ends equilateral triangles of seven feet sides. It rests on the ground plane on one edge of its base, the plane of which descends from the spectator at an angle of 40° with the picture plane, towards the right, and is inclined at 45° with the ground. The near corner of the base is 3 feet on the right and 7 feet within. The eye is 4 feet above the ground and 12 feet in front of the picture plane. Scale $\frac{1}{2}$ inch to 1 foot.

2. Sketch the columns of the Tuscan, Doric, Ionic, and Corinthian orders of architecture.

3. Describe ellipses according to the following methods, the transverse and conjugate diameters being given :—

- (a) by a piece of thread ;
- (b) by intersecting lines ;
- (c) by intersecting arcs ;
- (d) by means of a straight-edge or paper trammel.

4. Show a simple style of lettering and figuring, such as you would use on an architectural drawing.

5. Construct diagonal scales as follows :—

- (a) to read $\frac{1}{100}$ of an inch, and to measure 5 inches ;
- (b) $\frac{3}{4}$ inch to a yard, to read yards, feet and inches, and to measure 6 yards ;
- (c) $\frac{7}{8}$ inch to 1 foot, to read to tenths of an inch, and to measure 5 feet.

6. Draw the plan of a solid Maltese Cross enclosed in a 6 inch square. The cross is built of stuff 2 inches thick. Make an isometric drawing of the complete solid.

Education Department, Ontario.

Annual Examinations, 1906.

ART SPECIALIST.

BLACKBOARD DRAWING.

Examiners: { J. H. CAMERON, M.A.
S. K. DAVIDSON.
A. H. LEAKE.

NOTE.—*Question 1 must be taken. The Candidate may select any three others.*

1. Make a blackboard sketch of the group of models presented.
2. Make such blackboard sketches as you would use in giving a lesson on “water” or “steam”.
3. Sketch a Red Maple Tree, and a fruiting spray of Box Elder with detailed drawings of the “keys”.
4. Make sketches of the following leaves :—birch, elm, horse-chestnut, sumach, and hickory.
5. Sketch an alphabet of capitals such as could be made in wire, remembering that each letter must be formed of one piece.

Education Department, Ontario.

Annual Examinations, 1906.

ART SPECIALIST.

HISTORY OF ART.

Examiners: { J. H. CAMERON, M.A.
S. K. DAVIDSON.
A. H. LEAKE.

NOTE.—*Only seven questions are to be answered. An option is allowed between questions 1 and 2, between 5 and 6, and between 8 and 9.*

1. Sketch in outline the ground-plan of a typical Greek temple, showing the arrangement of columns, walls, entrance and interior divisions.

2. Sketch in very general outline the ground-plan of a Gothic Cathedral, showing nave, choir, transepts and apse.

3. Show, by drawing simple outlines, the various forms which may be taken by the arch, and distinguish them by name.

4. Give the chief characteristics of Renaissance architecture.

5. Write a short biographical note on Giotto. What are the characteristics of his works?

6. What and where are Ghiberti's Gates? How are they decorated?

7. Write a short account of Michael Angelo as sculptor and painter.

8. Outline the life of Raphael. Mention the chief influences in the formation of his style. Name and describe one of his great paintings.

[OVER]

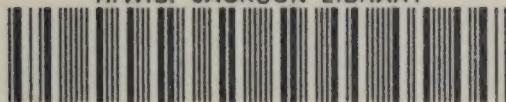
9. Who was Rembrandt, and when did he live? For what is his work noted?

10. Write explanatory notes on *four* of the following, two of which must be (f) and (g):—

- (a) Romanesque architecture;
- (b) Byzantine architecture;
- (c) the Alhambra;
- (d) the Campo Santo of Pisa;
- (e) the Sistine Chapel;
- (f) mosaics;
- (g) buttresses.

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